
From: Lauer, Michael (NIH/OD) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=90FE9CAE30C64CFBB67ABD568E882796-LAUERM]
Sent: 4/24/2020 8:26:17 PM
To: Kosub, David (NIH/OD) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=3e3eccf57f4e4fcaecaa7885f39bee5-kosubd]; Black, Jodi (NIH/OD) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=782921b9f08249b59a582e93f6963f5f-blackj]; Bulls, Michelle G. (NIH/OD) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b366f1a4382d44c1bde626e7730c3dd4-bullsmg]; Ta, Kristin (NIH/OD) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=72dc8e6c4cae4efcaa9e72eabbff2ee3-takr]
CC: Columbus, Megan (NIH/OD) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e8878f99917841749c5ae3fad8d90c73-columbum]; Rabin, Elise (NIH/OD) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=a3426cfac5b54e8dae0d1aca72262bf3-rabine]; Lauer, Michael (NIH/OD) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=90fe9cae30c64cfbb67abd568e882796-lauerm]
Subject: Re: Hill Qs on WIV
Attachments: FACTS Snapshot for 2-R01-AI110964-06 DASZAK, PETER QVR.pdf; Daszak Foreign Year 6.pdf; Daszak Foreign Year 5.pdf; Daszak Foreign Year 4.pdf; Daszak Foreign Year 3.pdf; Daszak Foreign Year 2.pdf; Daszak Foreign Year 1.pdf

Thanks David – here are thoughts:

Do we know why the amount went down in 2019? Just random fluctuation?

The first 5-year “Type 1” grant ended and the competing renewal, a “Type 2” started. The renewal proposal was not the same as the de novo one. It’s not unusual for budget allocations to change (up or down) when a renewal grant is proposed and funded.

Who were the other subawardees? (i.e. the specific institutes in countries listed in the statement -- China, Thailand, Cambodia, Laos, Vietnam, Malaysia, Indonesia, and Myanmar). Joel later specified that he wants info for all subawards for all locations for all of those six years.

See attached State Department clearance documents. There may be more info through NIAID.

From: "Kosub, David (NIH/OD) [E]" (b) (6)
Date: Friday, April 24, 2020 at 2:22 PM
To: "Lauer, Michael (NIH/OD) [E]" (b) (6), "Black, Jodi (NIH/OD) [E]" (b) (6), "Bulls, Michelle G. (NIH/OD) [E]" (b) (6), "Ta, Kristin (NIH/OD) [E]" (b) (6)
Cc: "Columbus, Megan (NIH/OD) [E]" (b) (6), "Rabin, Elise (NIH/OD) [E]" (b) (6)
Subject: FW: Hill Qs on WIV

Mike, Jodi, Michelle, and Kristin,

Please see the forwarded message below from OLPA. Greatly appreciate your advice on how to proceed.

Thank you
David

From: LaMontagne, Karen (NIH/OD) [E] (b) (6)
Sent: Friday, April 24, 2020 1:46 PM
To: Kosub, David (NIH/OD) [E] (b) (6)
Cc: Rabin, Elise (NIH/OD) [E] (b) (6)
Subject: Hill Qs on WIV

Hi, David and Elise,

Thank you for chatting earlier today. As discussed, OLPA received a number of Congressional inquiries inspired by media reports on the Wuhan Institute of Virology (WIV). We have satisfied most of the info requests but are seeking your help with a few outstanding questions from staff from the House LHHS Appropriations Subcommittee and Senator Cruz's office. NIAID now indicates that OER would be best positioned given that it is leading other efforts to request information from the PI, and that NIAID wouldn't have more information than OER would be providing.

We appreciate your sharing with Mike, Jodi, and Michelle to get answers to outstanding questions from the Hill. Unfortunately, these requests are already a bit stale since they were put into a holding pattern while information gathering efforts shifted over the last two weeks. If we can get a response by Tuesday 4/28, that would be extremely helpful.

For reference, here is a brief summary of what each staffer asked, what OLPA shared with them so far, and the **outstanding questions for which we are still seeking information (bolded below).**

HOUSE LHHS

- In response to her request for the funding history for the Wuhan Institute of Virology, we shared with Kathryn Salmon from House LHHS Appropriations a FY14-19 subaward funding chart that NIAID provided (pasted below my signature for reference).
- In follow-up, referencing that chart, Kathryn asks:
Do we know why the amount went down in 2019? Just random fluctuation? She added that some reports have said that this facility was cited for poor management and wants to know if that's why the amount went down.

SENATOR TED CRUZ

- In response to initial questions from Joel Heimbach from Sen. Cruz's staff, we shared an OD-cleared statement and the FY19 funding line only from the chart produced by NIAID (pasted below my signature for reference).
- In response to a follow-up asking for a detailed rundown of exactly how the \$76,301 (FY19) was spent by WIV, we shared the following program info from NIAID:

Additional detail about activities supported through the subaward to the Wuhan Institute of Virology is below.

Through project subawards, NIAID has supported the following activities at the Wuhan Institute of Virology: coronavirus screening and serology of non-human samples, viral pathogenesis, serological testing, host receptor binding, spike (S) protein sequencing, and *in vitro* and *in vivo* virus characterization. NIAID has not supported the creation of recombinant viruses at the Wuhan Institute of Virology.

- Joel again followed-up with these additional questions - we were able to answer Qs #1 and #2, but we **still need the information for #3:**

(1) who was the original/main project awardee;

(2) what entity made the subaward to the WIV; and,

(3) who were the other subawardees? (i.e. the specific institutes in countries listed in the statement -- China, Thailand, Cambodia, Laos, Vietnam, Malaysia, Indonesia, and Myanmar). Joel later specified that he wants info for all subawards for all locations for all of those six years.

Again, thank you very much for your assistance with these outstanding Hill requests for information. Please let me know if you have any questions.

Karen

Karen LaMontagne
Office of Legislative Policy & Analysis
National Institutes of Health
P: (b) (6)

NIAID Response

Below is NIAID's response to recent congressional inquiries on this topic. Please note that NIAID would defer any questions about the care of laboratory animals to the National Institutes of Health Office of Laboratory Animal Welfare.

The National Institute of Allergy and Infectious Diseases (NIAID) continues to support research to understand the risk of bat coronavirus emergence in China and Southeast Asia. NIAID-supported scientists at EcoHealth Alliance and their collaborators at Wuhan Institute of Virology, Duke-National University of Singapore Medical School, and other organizations are working to better understand what factors allow coronaviruses to evolve and jump from animals into humans. Through project subawards, NIAID has supported the following activities at the Wuhan Institute of Virology: coronavirus screening and serology of non-human samples, viral pathogenesis, serological testing, host receptor binding, spike (S) protein sequencing, and *in vitro* and *in vivo* virus characterization. NIAID has not supported the creation of recombinant viruses at the Wuhan Institute of Virology. NIAID funding for these activities through project subawards to the Wuhan Institute of Virology is outlined in the table below.

NIAID Subawards to Wuhan Institute of Virology

Fiscal Year	Project Number/ Title	Organization	Subaward Recipient	Subaward Amount
2019	R01AI110964: Understanding the Risk of Bat Coronavirus Emergence	EcoHealth Alliance	Wuhan Institute of Virology	\$76,301
2018	R01AI110964: Understanding the Risk of Bat	EcoHealth Alliance	Wuhan Institute of Virology	\$159,122

	Coronavirus Emergence			
2017	R01AI110964: Understanding the Risk of Bat Coronavirus Emergence	EcoHealth Alliance	Wuhan Institute of Virology	\$159,122
2016	R01AI110964: Understanding the Risk of Bat Coronavirus Emergence	EcoHealth Alliance	Wuhan Institute of Virology	\$159,122
2015	R01AI110964: Understanding the Risk of Bat Coronavirus Emergence	EcoHealth Alliance	Wuhan Institute of Virology	\$139,015
2014	R01AI110964: Understanding the Risk of Bat Coronavirus Emergence	EcoHealth Alliance	Wuhan Institute of Virology	\$133,595
Total FY 14-19				\$826,277

OD-cleared statement shared with Hill offices

Most emerging human viruses come from wildlife, and these represent a significant threat to public health and biosecurity in the US and globally, as demonstrated by the SARS epidemic of 2002-03, and the current COVID-19 pandemic. The grant you are referencing is a multi-site, multi-country project supporting research that aims to understand what factors allow coronaviruses, including close relatives to SARS, to evolve and jump into the human population and cause disease (called a spillover event). Specifically, the project includes studying viral diversity in animal (bats) reservoirs, surveying people that live in high-risk communities for evidence of bat-coronavirus infection, and conducting laboratory experiments to analyze and predict which newly-discovered viruses pose the greatest threat to human health. The \$3.7M dollar figure is the total funding over 6 years to all sites which include China, Thailand, Cambodia, Laos, Vietnam, Malaysia, Indonesia, and Myanmar. Additional details are available on the NIH RePORTER tool:

https://projectreporter.nih.gov/project_info_description.cfm?aid=9819304&icde=49588715&ddparam=&ddvalue=&ddsub=&cr=1&csb=default&cs=ASC&pball= .

Also, please note, scientific research indicates that there is no evidence that suggests the virus was created in a laboratory: <https://www.sciencedaily.com/releases/2020/03/200317175442.htm>

QVR FACTS

FACTS Data Snapshot for: 2-R01-AI110964-06 (DASZAK, PETER)

PRINT CLOSE
Appl id: 98193

Understanding the Risk of Bat Coronavirus Emergence

Launch the FACTS System: [FACTS](#)Hop to Country: [Project Information](#) [CHINA](#) [SINGAPORE](#)

Project Info

Project Number 2-R01-AI110964-06 (as reflected under competing project number 2-R01-AI110964-06 in FACTS)

PI Name DASZAK, PETER

Org Name ECOHEALTH ALLIANCE, INC.

Project Title Understanding the Risk of Bat Coronavirus Emergence

FY/Project Dates 2019 (Project Period from 2014-06-01 to 2014-06-30)

Project Status Awarded (05)

Foreign Appl Flag Domestic Application with Foreign Collaboration (2)

CHINA

State Department Clearance Request (SDCR ID 219890)

Click the - to hide the Research Objective listed on State Department Clearance.

This work is an extension and renewal of a previous award, approved under clearances 202191 and 211200. The aims of this research project are to examine the mechanism through which coronaviruses (CoVs) jump from animal hosts/reservoirs to humans (spillover events). To accomplish this work the PI and his team will conduct detailed surveillance for coronaviruses in four provinces: Yunnan, Guizhou, Guangxi, and Guangdong. The exact sites have not yet been identified; as in the previous award, sites will be selected from the four provinces as work progresses. Surveillance will include sampling of wild bat populations. Samples will be collected from animals from each of these sites, and will be analyzed to determine what coronaviruses are present, and whether the viruses are able to infect humans. The investigators plan to collect samples from bats, approximately 5,000 samples total from 15-20 species across all four provinces. Animals will be captured and lightly anesthetized if necessary. They will be swabbed (mouth/nose, urogenital tract, and rectum), and a small amount of blood will be collected. If available, feces and urine will also be collected. Nearly all wild bats will be released unharmed after sampling. A small number of bats (maximum of 2 per species) may be euthanized in order to collect lung and intestinal tissue required for characterizing viral receptors. In order to understand whether select strains of bat-borne CoVs utilize receptors found in bats have the potential to infect people, the investigators will use mice that have been genetically modified to express the human receptor for SARS-CoV. The investigators anticipate identifying 5-6 SARS-related-CoVs that will be tested in mice, using approximately 15-20 mice per virus strain. A maximum of 120 mice will be used for this work over the project. All work involving samples and viral isolates from bats will be performed at the Wuhan Institute of Virology. All animal work will be performed by trained individuals in accordance with the American Veterinary Medical Association guidelines, and the project is overseen by veterinarians. This work has also been reviewed and approved by the investigator's Institutional Animal Care and Use Committee. This project will also study human exposure to animal coronaviruses across the same four provinces in southern China. Samples will be collected from each of these sites from individuals who 1) who are highly exposed to bats in community settings, including through hunting, butchering, or general handling within the context of their living or working environment (18+ years old); and 2) patients admitted to hospitals and clinics presenting with disease symptoms of clinically-defined severe/acute respiratory illness (SARI/ARI) or influenza-like illness (ILI) of unknown origin (12+ years old). Subjects will be enrolled on a voluntary basis and informed consent will be obtained from all participants. Consenting participants will provide biological samples and complete a questionnaire at the time of acute illness and 35 days after resolution of illness. There will be no follow-up among community participants after initial sample collection. The study population will be selected from the Yunnan, Guangxi, Guangdong, and Guizhou provinces of China. They plan to enroll: 1) in 12 clinic sites across the four provinces, 2,750 individuals (accounting for an estimated 40% loss from follow-up); and 2) in 8 community sites, 1,650 individuals per each of the four provinces, pooled across two sites for each province for a total of 6,660 participants. Enrollment is anticipated to be 100% Asian, with a 50/50 split between males and females. All human subject work will be managed by the team at the Institute for Pathogen Biology.

NIH/ID Contact

Bernabe, Gavin
Phone: (b) (6)

SDCR ACTIONS

SDCR ACTIONS	ACTION DATES
Approved	2019-09-30
Approve	2019-05-30
Submit to State Department	2019-05-29
Send to Agency	2019-05-28
IC Update	2019-05-24
IC Save	2019-05-10

Collaborator/Site (Site ID: 262256)	Site Flags	Budget Period	Budget Amt	Verified By	Verified Date
ZHU, GUANGJIAN EAST CHINA NORMAL UNIVERSITY School of Life Science, 8327 Science building, 3663 Zhongshan Beilu Shanghai 200062	Animals: Y FWA: Y Humans: N				
Collaborator/Site (Site ID: 262253)	Site Flags	Budget Period	Budget Amt	Verified By	Verified Date
GUO, LI INSTITUTE OF PATHOGEN BIOLOGY Dong Dan San Tiao, No. 9 Dongcheng District Beijing 100730	Animals: N FWA: Y Humans: Y				
Collaborator/Site (Site ID: 262252)	Site Flags	Budget Period	Budget Amt	Verified By	Verified Date
REN, LILIJ INSTITUTE OF PATHOGEN BIOLOGY Dong Dan San Tiao, No. 9 Dongcheng District Beijing 100730	Animals: N FWA: Y Humans: Y				

Collaborator/Site (Site ID: 262251)	Site Flags	Budget Period	Budget Amt	Verified By	Verified Date
HU, BEN WUHAN INSTITUTE OF VIROLOGY Xiao Hong Sitan, No. 44 Wuchang District Wuhan 430071	Animals: Y FWA: Humans: N				

Collaborator/Site (Site ID: 261948)	Site Flags	Budget Period	Budget Amt	Verified By	Verified Date
SHI, ZHENG LI WUHAN INSTITUTE OF VIROLOGY Xiao Hong Sitan, No. 44 Wuchang District Wuhan 430071	Animals: Y FWA: Humans: N				

Collaborator/Site (Site ID: 262250)	Site Flags	Budget Period	Budget Amt	Verified By	Verified Date
ZHOU, PENG WUHAN INSTITUTE OF VIROLOGY Xiao Hong Sitan, No. 44 Wuchang District Wuhan 430071	Animals: Y FWA: Humans: N				

SINGAPORE

State Department Clearance Request (SDCR ID 219753)	NIH/ID Contact	SDCR ACTIONS	ACTION DATES
Click the + to show the Research Objective listed on State Department Clearance.	Bernabe, Gayle Phone: (b) (6)	Approved Auto Approval Send to Agency Submit to State Department IC Save	2019-05-20 2019-05-20 2019-05-06 2019-05-06 2019-05-01

Collaborator/Site (Site ID: 262258)	Site Flags	Budget Period	Budget Amt	Verified By	Verified Date
WANG, LINFA DUKE-NUS MEDICAL SCHOOL 8 College Road Singapore 169857	Animals: N FWA: Humans: N				

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-06

Application Status:	Awarded. Non-fellowships only	Foreign	Domestic with Foreign Component
PD/PI Name:	DASZAK, PETER	Project Title:	Understanding the Risk of Bat Coronavirus Emergence
Institution:	ECOHEALTH ALLIANCE, INC.		

Clearance 219890

STATUS AND ACTION			
Action Date	Performed By	Status	Action Comments
5/30/19 12:52 AM	Parrish Fuentes, Adrienne	Approved	
5/29/19 2:43 PM	Officer, Jackie	Pending State Department Review	
5/28/19 4:08 PM	Bernabe, Gayle	Pending Agency Review	
5/24/19 2:54 PM	Stemmy, Erik	Saved	
5/10/19 10:00 AM	Stemmy, Erik	Initiated	

STATE DEPARTMENT CLEARANCE

Research

This work is an extension and renewal of a previous award, approved under clearances 202191 and 211200. The aims of this research project are to examine the mechanism through which coronaviruses (CoVs) jump from animal hosts/reservoirs to humans (spillover events). To accomplish this work the PI and his team will conduct detailed surveillance for coronaviruses in four provinces: Yunnan, Guizhou, Guangxi, and Guangdong. The exact sites have not yet been identified; as in the previous award, sites will be selected from the four provinces as work progresses. Surveillance will include sampling of wild bat populations. Samples will be collected from animals from each of these sites, and will be analyzed to determine what coronaviruses are present, and whether the viruses are able to infect humans.

The investigators plan to collect samples from bats, approximately 5,000 samples total from 15-20 species across all four provinces. Animals will be captured and lightly anesthetized if necessary. They will be swabbed (mouth/nose, urogenital tract, and rectum), and a small amount of blood will be collected. If available, feces and urine will also be collected. Nearly all wild bats will be released unharmed after sampling. A small number of bats (maximum of 2 per species) may be euthanized in order to collect lung and intestinal tissue required for characterizing viral receptors. In order to understand whether select strains of bat-borne CoVs utilize receptors found in bats have the potential to infect people, the investigators will use mice that have been genetically modified to express the human receptor for SARS-CoV. The investigators anticipate identifying 5-6 SARS-related-CoVs that will be tested in mice, using approximately 15-20 mice per virus strain. A maximum of 120 mice will be used for this work over the project. All work involving samples and viral isolates from bats will be performed at the Wuhan Institute of Virology. All animal work will be performed by trained individuals in accordance with the American Veterinary Medical Association guidelines, and the project is overseen by veterinarians. This work has also been reviewed and approved by the investigator's Institutional Animal Care and Use Committee.

This project will also study human exposure to animal coronaviruses across the same four provinces in southern China. Samples will be collected from each of these sites from individuals who 1) who are highly exposed to bats in community settings, including through hunting, butchering, or general handling within the context of their living or working environment (18+ years old); and 2) patients admitted to hospitals and clinics presenting with disease symptoms of clinically-defined severe/acute respiratory illness (SARI/ARI) or Influenza-like illness (ILI) of unknown origin (12+ years old). Subjects will be enrolled on a voluntary basis and informed consent will be obtained from all participants. Consenting participants will provide biological samples and complete a questionnaire at the time of acute illness and 35 days after resolution of illness. There will be no follow-up among community participants after initial sample collection. The study population will be selected from the Yunnan, Guangxi, Guangdong, and Guizhou provinces of China. They plan to enroll: 1) in 12 clinic sites across the four provinces, 2,750 individuals (accounting for an estimated 40% loss from follow-up); and 2) in 8 community sites, 1,650 individuals per each of the four provinces, pooled across two sites for each province for a total of 6,660 participants. Enrollment is anticipated to be 100% Asian, with a 50/50 split between males and females. All human subject work will be managed by the team at the Institute for Pathogen Biology.

Contact Details:

	Contact	Email	Phone
IC Contact	Bernabe, Gayle	NIAIDFCTS@mail.nih.gov	(b) (6)

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-06

Application Status: Awarded. Non-fellowships only **Foreign** Domestic with Foreign Component
PD/PI Name: DASZAK, PETER **Project Title:** Understanding the Risk of Bat Coronavirus Emergence
Institution: ECOHEALTH ALLIANCE, INC.

Agency Contact Chung, Tina
Program Officer Stemmy, Erik J.
Grants Specialist Girma, Tseday G

(b) (6)

FOREIGN CHINA
Clearance Type: Renew

Support Year	Fiscal Year	Research Activities Status at Country	Estimated Total Cost at Country
6	2019	Active	151901
7	2020	Active	151901
8	2021	Active	151901
9	2022	Active	151901
10	2023	Active	151901
Total			759505

Collaborator	Shi, Zheng Li	Involve Humans:	No
Institution/Site:	Wuhan Institute of Virology	FWA	Not Specified
Phone:	(b) (6)	Involve Animals:	Yes
Email:	(b) (6)	Animal	Established
Address:	Xiao Hong SHan, No. 44 Wuchang District Wuhan 430071		

Support Year	Fiscal Year	Research Activities Status at Site	Estimated Total Cost at
6	2019	Active	0
7	2020	Active	0
8	2021	Active	0
9	2022	Active	0
10	2023	Active	0
Total			0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-06

Application Status: Awarded. Non-fellowships only

Foreign

Domestic with Foreign Component

PD/PI Name: DASZAK, PETER

Project Title:

Understanding the Risk of Bat
Coronavirus Emergence

Institution: ECOHEALTH ALLIANCE, INC.

Collaborator	Zhou, Peng	Involve Humans:	No
Institution/Site:	Wuhan Institute of Virology	FWA	Not Specified
Phone:	(b) (6)	Involve Animals:	Yes
Email:	(b) (6)	Animal	Established
Address:	Xiao Hong SHan, No. 44 Wuchang District Wuhan 430071		

Support Year	Fiscal Year	Research Activities Status at Site	Estimated Total Cost at
6	2019	Active	0
7	2020	Active	0
8	2021	Active	0
9	2022	Active	0
10	2023	Active	0
Total			0

Collaborator	Hu, Ben	Involve Humans:	No
Institution/Site:	Wuhan Institute of Virology	FWA	Not Specified
Phone:	(b) (6)	Involve Animals:	Yes
Email:	(b) (6)	Animal	Established
Address:	Xiao Hong SHan, No. 44 Wuchang District Wuhan 430071		

Support Year	Fiscal Year	Research Activities Status at Site	Estimated Total Cost at
6	2019	Active	0
7	2020	Active	0
8	2021	Active	0
9	2022	Active	0
10	2023	Active	0
Total			0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-06

Application Status: Awarded. Non-fellowships only

Foreign

Domestic with Foreign Component

PD/PI Name: DASZAK, PETER

Project Title:

Understanding the Risk of Bat
Coronavirus Emergence

Institution: ECOHEALTH ALLIANCE, INC.

Collaborator	Ren, Lili	Involve Humans:	Yes
Institution/Site:	Institute of Pathogen Biology	FWA	Established
Phone:	(b) (6)	Involve Animals:	No
Email:	(b) (6)	Animal	Not Specified
Address:	Dong Dan San Tiao, No. 9 Dongcheng District Beijing 100730		

Support Year	Fiscal Year	Research Activities Status at Site	Estimated Total Cost at
6	2019	Active	0
7	2020	Active	0
8	2021	Active	0
9	2022	Active	0
10	2023	Active	0
Total			0

Collaborator	Guo, Li	Involve Humans:	Yes
Institution/Site:	Institute of Pathogen Biology	FWA	Established
Phone:	(b) (6)	Involve Animals:	No
Email:	(b) (6)	Animal	Not Specified
Address:	Dong Dan San Tiao, No. 9 Dongcheng District Beijing 100730		

Support Year	Fiscal Year	Research Activities Status at Site	Estimated Total Cost at
6	2019	Active	0
7	2020	Active	0
8	2021	Active	0
9	2022	Active	0
10	2023	Active	0
Total			0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-06

Application Status:	Awarded. Non-fellowships only	Foreign	Domestic with Foreign Component
PD/PI Name:	DASZAK, PETER	Project Title:	Understanding the Risk of Bat Coronavirus Emergence
Institution:	ECOHEALTH ALLIANCE, INC.		

Collaborator	Zhu, Guangjian	Involve Humans:	No
Institution/Site:	East China Normal University	FWA	Not Specified
Phone:	(b) (6)	Involve Animals:	Yes
Email:	(b) (6)	Animal	Pending
Address:	School of Life Science, B327 Science building, 3663 Zhongshan Bellu Shanghai 200062		

Support Year	Fiscal Year	Research Activities Status at Site	Estimated Total Cost at
6	2019	Active	0
7	2020	Active	0
8	2021	Active	0
9	2022	Active	0
10	2023	Active	0
Total			0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-06

Application Status: Awarded. Non-fellowships only **Foreign** Domestic with Foreign Component
PD/PI Name: DASZAK, PETER **Project Title:** Understanding the Risk of Bat Coronavirus Emergence
Institution: ECOHEALTH ALLIANCE, INC.

Clearance 219753

STATUS AND ACTION			
Action Date	Performed By	Status	Action Comments
5/20/19 10:00 PM	AUTO_APPROVAL	Approved	
5/6/19 1:13 PM	Scharf, Sarah	Pending State Department Review	
5/6/19 11:13 AM	Bernabe, Gayle	Pending Agency Review	
5/1/19 11:21 AM	Stemmy, Erik	Initiated	

STATE DEPARTMENT CLEARANCE

Research

The aims of this research project are to examine the mechanism through which coronaviruses (CoVs) jump from animal hosts/reservoirs to humans (spillover events). To accomplish this work the PI and his team will conduct detailed surveillance for CoVs in four provinces in China: Yunnan, Guizhou, Guangxi, and Guangdong. Surveillance will include sampling of wild bat populations and humans. Samples will be collected from animals from each of these sites, and will be analyzed to determine what CoVs are present, and whether the viruses are able to infect humans. The collaborator at Duke-NUS will act as a consultant on the project, and provide her expertise on serological testing, virus characterization, and PCR detection of viruses. Work at this site will not involve any processing of any samples.

Contact Details:

	Contact	Email	Phone
IC Contact	Bernabe, Gayle		(b) (6)
Agency Contact	Chung, Tina		
Program Officer	Stemmy, Erik J.		
Grants Specialist	Girma, Tseday G		

FOREIGN SINGAPORE
Clearance Type: New

Support Year	Fiscal Year	Research Activities Status at Country	Estimated Total Cost at Country
6	2019	Active	0
7	2020	Active	0
8	2021	Active	0
9	2022	Active	0
10	2023	Active	0
Total			0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-06

Application Status:	Awarded. Non-fellowships only	Foreign	Domestic with Foreign Component
PD/PI Name:	DASZAK, PETER	Project Title:	Understanding the Risk of Bat Coronavirus Emergence
Institution:	ECOHEALTH ALLIANCE, INC.		

Collaborator	Wang, Linfa	Involve Humans:	No
Institution/Site:	Duke-NUS Medical School	FWA	Not Specified
Phone:	(b) (6)	Involve Animals:	No
Email:	(b) (6)	Animal	Not Specified
Address:	8 College Road Singapore 169857		

Support Year	Fiscal Year	Research Activities Status at Site	Estimated Total Cost at
6	2019	Active	0
7	2020	Active	0
8	2021	Active	0
9	2022	Active	0
10	2023	Active	0
Total			0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-06

Application Status:	Awarded. Non-fellowships only	Foreign	Domestic with Foreign Component
PD/PI Name:	DASZAK, PETER	Project Title:	Understanding the Risk of Bat Coronavirus Emergence
Institution:	ECOHEALTH ALLIANCE, INC.		

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-05

Application Status: Awarded. Non-fellowships only Foreign Domestic with Foreign Component
 PD/PI Name: DASZAK, PETER Project Title: Understanding the Risk of Bat Coronavirus Emergence
 Institution: ECOHEALTH ALLIANCE, INC.

Clearance 212153

STATUS AND ACTION			
Action Date	Performed By	Status	Action Comments
4/10/17 10:00 PM	AUTO_APPROVAL	Approved	
3/27/17 10:44 AM	Officer, Jackie	Pending State Department Review	
3/25/17 12:23 PM	Bernabe, Gayle	Pending Agency Review	(b) (5)
3/2/17 3:35 PM	Stemmy, Erik	Initiated	

STATE DEPARTMENT CLEARANCE

Research

The aims of this research project are to examine the mechanism through which coronaviruses jump from animal hosts/reservoirs to humans (spillover events). To accomplish this work the PI and his team will conduct detailed surveillance for coronaviruses at eight sites throughout in Asia (China, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Thailand, and Vietnam). Sampling sites will include urban centers, rural areas, and live animal markets. Samples will be collected from animals from each of these sites, and will be analyzed to determine what coronaviruses are present, and whether the viruses are able to infect humans.

The investigators plan to collect samples from bats (900 samples total across all sites), rodents (900 samples total across all sites), and small carnivores such as palm civets and ferret badgers (500 samples total across all sites). Animals will be captured and lightly anesthetized if necessary. They will be swabbed (mouth/nose, urogenital tract, and rectum), and a small amount of blood will be collected. If available, feces and urine will also be collected. All wild animals will be released unharmed after sampling. Of animals that are collected from live markets, a maximum of two per species may be humanely euthanized for organ tissue sampling. All animal work will be performed by trained individuals in accordance with the American Veterinary Medical Association guidelines, and the project is overseen by veterinarians. This work has also been reviewed and approved by the investigator's Institutional Animal Care and Use Committee.

Contact Details:

	Contact	Email	Phone
IC Contact	Bernabe, Gayle	(b) (6)	
Agency Contact	Gupta, Ranjan		
Program Officer	Stemmy, Erik J.		
Grants Specialist	Greer, Jenny L		

FOREIGN BURMA
 Clearance Type: New

Support Year	Fiscal Year	Research Activities Status at Country	Estimated Total Cost at Country
1	2014	Inactive	0
2	2015	Inactive	0
3	2016	Active	3000

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-05

Application Status:	Awarded. Non-fellowships only	Foreign	Domestic with Foreign Component
PD/PI Name:	DASZAK, PETER	Project Title:	Understanding the Risk of Bat Coronavirus Emergence
Institution:	ECOHEALTH ALLIANCE, INC.		

4	2017	Active	0
5	2018	Active	0
Total			3000

Collaborator	Toe, Aung Than	Involve Humans:	No
Institution/Site:	San Pya Clinic	FWA	Established
Phone:	(b) (6)	Involve Animals:	Yes
Email:	(b) (6)	Animal	Established
Address:	20/256 Insein Road Yangon 11051		

Support Year	Fiscal Year	Research Activities Status at Site	Estimated Total Cost at
1	2014	Inactive	0
2	2015	Inactive	0
3	2016	Active	0
4	2017	Active	0
5	2018	Active	0
Total			0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-05

Application Status: Awarded. Non-fellowships only **Foreign** Domestic with Foreign Component
PD/PI Name: DASZAK, PETER **Project Title:** Understanding the Risk of Bat Coronavirus Emergence
Institution: ECOHEALTH ALLIANCE, INC.

Clearance 212148

STATUS AND ACTION			
Action Date	Performed By	Status	Action Comments
3/27/17 10:00 PM	AUTO_APPROVAL	Approved	
3/13/17 11:21 AM	Officer, Jackie	Pending State Department Review	
3/13/17 10:21 AM	Bernabe, Gayle	Pending Agency Review	
3/2/17 3:16 PM	Stemmy, Erik	Initiated	

STATE DEPARTMENT CLEARANCE

Research

The aims of this research project are to examine the mechanism through which coronaviruses jump from animal hosts/reservoirs to humans (spillover events). To accomplish this work the PI and his team will conduct detailed surveillance for coronaviruses at eight sites throughout in Asia (China, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Thailand, and Vietnam). Sampling sites will include urban centers, rural areas, and live animal markets. Samples will be collected from animals from each of these sites, and will be analyzed to determine what coronaviruses are present, and whether the viruses are able to infect humans.

The investigators plan to collect samples from bats (900 samples total across all sites), rodents (900 samples total across all sites), and small carnivores such as palm civets and ferret badgers (500 samples total across all sites). Animals will be captured and lightly anesthetized if necessary. They will be swabbed (mouth/nose, urogenital tract, and rectum), and a small amount of blood will be collected. If available, feces and urine will also be collected. All wild animals will be released unharmed after sampling. Of animals that are collected from live markets, a maximum of two per species may be humanely euthanized for organ tissue sampling. All animal work will be performed by trained individuals in accordance with the American Veterinary Medical Association guidelines, and the project is overseen by veterinarians. This work has also been reviewed and approved by the investigator's Institutional Animal Care and Use Committee.

Contact Details:

	Contact	Email	Phone
IC Contact	Bernabe, Gayle	(b) (6)	
Agency Contact	Chung, Tina		
Program Officer	Stemmy, Erik J.		
Grants Specialist	Greer, Jenny L.		
FOREIGN	CAMBODIA		
Clearance Type:	New		

Support Year	Fiscal Year	Research Activities Status at Country	Estimated Total Cost at Country
1	2014	Inactive	0
2	2015	Inactive	0
3	2016	Active	3000
4	2017	Active	0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-05

Application Status: Awarded. Non-fellowships only **Foreign** Domestic with Foreign Component
PD/PI Name: DASZAK, PETER **Project Title:** Understanding the Risk of Bat Coronavirus Emergence
Institution: ECOHEALTH ALLIANCE, INC.

5	2018	Active	0
Total			3000

Collaborator	Duong, Veasna	Involve Humans:	No
Institution/Site:	Institut Pasteur du Cambodge	FWA	Established
Phone:	(b) (6)	Involve Animals:	Yes
Email:	(b) (6)	Animal	Established
Address:	No. 5 Monivong Boulevard P.O. Box 983 Phnom Penh		

Support Year	Fiscal Year	Research Activities Status at Site	Estimated Total Cost at
1	2014	Inactive	0
2	2015	Inactive	0
3	2016	Active	0
4	2017	Active	0
5	2018	Active	0
Total			0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-05

Application Status:	Awarded. Non-fellowships only	Foreign	Domestic with Foreign Component
PD/PI Name:	DASZAK, PETER	Project Title:	Understanding the Risk of Bat Coronavirus Emergence
Institution:	ECOHEALTH ALLIANCE, INC.		

Clearance 202191			
STATUS AND ACTION			
Action Date	Performed By	Status	Action Comments
3/11/14 9:34 PM	Wainscott, Brian	Approved	
2/25/14 1:05 PM	Chung, Tina	Pending State Department Review	
2/24/14 10:54 AM	Bemabe, Gayle	Pending Agency Review	(b) (5)
2/24/14 7:19 AM	Stemmy, Erik	Initiated	

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-05

Application Status:	Awarded. Non-fellowships only	Foreign	Domestic with Foreign Component
PD/PI Name:	DASZAK, PETER	Project Title:	Understanding the Risk of Bat Coronavirus Emergence
Institution:	ECOHEALTH ALLIANCE, INC.		

			(b) (5)
2/21/14 4:18 PM	Chung, Tina	Returned by Agency - Need Additional Information	
2/21/14 3:06 PM	Bernabe, Gayle	Pending Agency Review	

STATE DEPARTMENT CLEARANCE

Research

The aims of this research project are to examine the mechanism through which coronaviruses jump from animal hosts/reservoirs to humans (spillover events). To accomplish this work the Principal Investigator (PI) and his team will conduct detailed surveillance for coronaviruses at several sites throughout China including urban centers, rural areas, and live animal markets. Samples from each of these sites will be analyzed to determine what coronaviruses are present, and whether the viruses are able to infect humans. Blood samples will be obtained and interviews will be conducted with people who are highly exposed to wildlife. The researchers will also look at the potential for viral evolution in the context of the live animal market to investigate the emergence potential of novel coronaviruses, and to describe the dynamics of viral transmission from animal to human. Beginning in year 2 of the project, the researchers will interview human subjects over the age of 18 in the study sites, and the PI estimates 2,460 participants to be recruited. Participation will include answering questions regarding exposure to animals as well as blood sample collection. Informed consent for participation will be obtained from all human subjects and confidentiality of subjects will be protected, in compliance with NIH and in-country guidelines under the assurance number provided. All human samples will be analyzed at the provincial Centers for Disease Control and Prevention in Guangzhou.

Description of Animal Work in this project. Surveillance will be conducted in rural and urban (markets) sites in Guangxi, Yunnan, Fujian, and Guangdong Provinces. Wildlife samples will be collected from bat a variety of species. A minimum of 30 individual samples from 30 different bat species from the following families: Rhinolophidae, Hipposideridae, Vespertilionidae, Molossidae, and Pteropodidae. In market areas the investigators will opportunistically sample

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-05

Application Status: Awarded. Non-fellowships only **Foreign** Domestic with Foreign Component
PD/PI Name: DASZAK, PETER **Project Title:** Understanding the Risk of Bat Coronavirus Emergence
Institution: ECOHEALTH ALLIANCE, INC.

available insectivorous and frugivorous bats, as well as other mammals if available. Samples will include fresh feces or rectal swabs, saliva or oral swab, and blood. Nearly all animals will be released after samples are collected, however a small number of bats will be euthanized to collect internal organ samples for analysis. All work will be approved and conducted under IACUC supervision. Analysis of all animal samples will be conducted at the Wuhan Institute of Virology.

This information will be used to describe the risk of spillover events at the human-animal interface and to create detailed computer models that describe these events. These models could inform public health decisions by providing a means to investigate the risk of spillover events and help us understand what factors allow an animal coronavirus to evolve and jump into human populations.

Contact Details:

	Contact	Email	Phone
IC Contact	Bernabe, Gayle	(b) (6)	(b) (6)
Agency Contact	Chung, Tina		
Program Officer	Stemmy, Erik J.		
Grants Specialist	Pone, Laura A		
FOREIGN	CHINA		
Clearance Type:	New		

Support Year	Fiscal Year	Research Activities Status at Country	Estimated Total Cost at Country
1	2014	Active	227663
2	2015	Active	211699
3	2016	Active	213239
4	2017	Active	201422
5	2018	Active	191576
Total			1045599

Collaborator	Zhu, Guanjin	Involve Humans:	Yes
Institution/Site:	Guangdong Entomological Institute (ECNU)	FWA	Pending
Phone:	(b) (6)	Involve Animals:	Yes
Email:	(b) (6)	Animal	Pending
Address:	Room 1707, Building 622 3663 Zhongshanbei Rd Shanghai Putuo District 200026		

Support Year	Fiscal Year	Research Activities Status at Site	Estimated Total Cost at
1	2014	Active	0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-05

Application Status:	Awarded. Non-fellowships only	Foreign	Domestic with Foreign Component
PD/PI Name:	DASZAK, PETER	Project Title:	Understanding the Risk of Bat Coronavirus Emergence
Institution:	ECOHEALTH ALLIANCE, INC.		

2	2015	Active	0
3	2016	Active	0
4	2017	Active	0
5	2018	Active	0
Total			0

Collaborator	Shi, ZhengLi	Involve Humans:	Yes
Institution/Site:	Wuhan Institute of Virology	FWA	Pending
Phone:	(b) (6)	Involve Animals:	Yes
Email:	(b) (6)	Animal	Pending
Address:	Xiao Hong Shan, No. 44 Wuchang District Wuhan 430071		

Support Year	Fiscal Year	Research Activities Status at Site	Estimated Total Cost at
1	2014	Active	133595
2	2015	Active	139015
3	2016	Active	159122
4	2017	Active	159122
5	2018	Active	159122
Total			749976

Collaborator	Zhang, ShuYi	Involve Humans:	Yes
Institution/Site:	East China Normal University	FWA	Pending
Phone:	(b) (6)	Involve Animals:	Yes
Email:	(b) (6)	Animal	Pending
Address:	3663 Zhongshan Beilu Shanghai 200062		

Support Year	Fiscal Year	Research Activities Status at Site	Estimated Total Cost at
1	2014	Active	94068

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-05

Application Status:	Awarded. Non-fellowships only	Foreign	Domestic with Foreign Component
PD/PI Name:	DASZAK, PETER	Project Title:	Understanding the Risk of Bat Coronavirus Emergence
Institution:	ECOHEALTH ALLIANCE, INC.		

2	2015	Active	72684
3	2016	Active	54117
4	2017	Active	42300
5	2018	Active	32454
Total			295623

Collaborator	Ke, Changwen	Involve Humans:	Yes
Institution/Site:	Center for Disease Control and Prevention of Guangdong	FWA	Pending
Phone:	(b) (6)	Involve Animals:	Yes
Email:	(b) (6)	Animal	Pending
Address:	176 Xigang Xilu Guangzhou 5103000		

Support Year	Fiscal Year	Research Activities Status at Site	Estimated Total Cost at
1	2014	Active	0
2	2015	Active	0
3	2016	Active	0
4	2017	Active	0
5	2018	Active	0
Total			0

Collaborator	Zhang, Yun-Zhi	Involve Humans:	Yes
Institution/Site:	Yunnan Institute of Endemic Diseases Control and Prevention	FWA	Pending
Phone:	(b) (6)	Involve Animals:	Yes
Email:	(b) (6)	Animal	Pending
Address:	33 Wenhua Road Dali 650201		

Support Year	Fiscal Year	Research Activities Status at Site	Estimated Total Cost at
1	2014	Active	0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-05

Application Status:	Awarded. Non-fellowships only	Foreign	Domestic with Foreign Component
PD/PI Name:	DASZAK, PETER	Project Title:	Understanding the Risk of Bat Coronavirus Emergence
Institution:	ECOHEALTH ALLIANCE, INC.		

2	2015	Active	0
3	2016	Active	0
4	2017	Active	0
5	2018	Active	0
Total			0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-05

Application Status: Awarded. Non-fellowships only **Foreign** Domestic with Foreign Component
PD/PI Name: DASZAK, PETER **Project Title:** Understanding the Risk of Bat Coronavirus Emergence
Institution: ECOHEALTH ALLIANCE, INC.

Clearance 211200

STATUS AND ACTION			
Action Date	Performed By	Status	Action Comments
11/29/16 4:04 AM	Yao, Lingyun	Approved	
10/24/16 11:25 AM	Officer, Jackie	Pending State Department Review	
10/24/16 10:07 AM	Bernabe, Gayle	Pending Agency Review	
10/20/16 1:56 PM	Stemmy, Erik	Saved	
10/12/16 3:35 PM	Stemmy, Erik	Initiated	

STATE DEPARTMENT CLEARANCE

Research

The aims of this research project are to examine the mechanism through which coronaviruses jump from animal hosts/reservoirs to humans (spillover events). To accomplish this work the PI and his team will conduct detailed surveillance for coronaviruses at several sites throughout China including urban centers, rural areas, and live animal markets. Samples from each of these sites will be analyzed to determine what coronaviruses are present, and whether the viruses are able to infect humans. Blood samples will be obtained and interviews will be conducted with people who are highly exposed to wildlife. The researchers will also look at the potential for viral evolution in the context of the live animal market to investigate the emergence potential of novel coronaviruses, and to describe the dynamics of viral transmission from animal to human. The researchers will interview human subjects over the age of 18 in the study sites, and the PI estimates 2,460 participants to be recruited. Participation will include answering questions regarding exposure to animals as well as blood sample collection. Informed consent for participation will be obtained from all human subjects and confidentiality of subjects will be protected, in compliance with NIH and in-country guidelines under the assurance number provided. All human samples will be analyzed at the provincial Centers for Disease Control and Prevention in Guangzhou.

This information will be used to describe the risk of spillover events at the human-animal interface and to create detailed computer models that describe these events. These models could inform public health decisions by providing a means to investigate the risk of spillover events and help us understand what factors allow an animal coronavirus to evolve and jump into human populations.

Contact Details:

	Contact	Email	Phone
IC Contact	Bernabe, Gayle	(b) (6)	
Agency Contact	Chung, Tina		
Program Officer	Stemmy, Erik J.		
Grants Specialist	Greer, Jenny L.		
FOREIGN	CHINA		
Clearance Type:	New		

Support Year	Fiscal Year	Research Activities Status at Country	Estimated Total Cost at Country
1	2014	Active	227663
2	2015	Active	211699

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-05

Application Status:	Awarded. Non-fellowships only	Foreign	Domestic with Foreign Component
PD/PI Name:	DASZAK, PETER	Project Title:	Understanding the Risk of Bat Coronavirus Emergence
Institution:	ECOHEALTH ALLIANCE, INC.		

3	2016	Active	213239
4	2017	Active	201422
5	2018	Active	191576
Total			1045599

Collaborator	Li, Shiyue	Involve Humans:	Yes
Institution/Site:	School of Public Health, Wuhan University	FWA	Established
Phone:	(b) (6)	Involve Animals:	No
Email:	(b) (6)	Animal	Not Specified
Address:	115 Donghu Road Wuchang Wuhan Hubei 430071		

Support Year	Fiscal Year	Research Activities Status at Site	Estimated Total Cost at
1	2014	Inactive	0
2	2015	Inactive	0
3	2016	Active	0
4	2017	Active	0
5	2018	Active	0
Total			0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-05

Application Status: Awarded. Non-fellowships only **Foreign** Domestic with Foreign Component
PD/PI Name: DASZAK, PETER **Project Title:** Understanding the Risk of Bat Coronavirus Emergence
Institution: ECOHEALTH ALLIANCE, INC.

Clearance 212150

STATUS AND ACTION			
Action Date	Performed By	Status	Action Comments
3/27/17 10:00 PM	AUTO_APPROVAL	Approved	
3/13/17 11:22 AM	Officer, Jackie	Pending State Department Review	
3/13/17 10:17 AM	Bernabe, Gayle	Pending Agency Review	
3/2/17 3:23 PM	Stemmy, Erik	Initiated	

STATE DEPARTMENT CLEARANCE

Research

The aims of this research project are to examine the mechanism through which coronaviruses jump from animal hosts/reservoirs to humans (spillover events). To accomplish this work the PI and his team will conduct detailed surveillance for coronaviruses at eight sites throughout in Asia (China, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Thailand, and Vietnam). Sampling sites will include urban centers, rural areas, and live animal markets. Samples will be collected from animals from each of these sites, and will be analyzed to determine what coronaviruses are present, and whether the viruses are able to infect humans.

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Contact Details:

	Contact	Email	Phone
IC Contact	Bernabe, Gayle		(b) (6)
Agency Contact	Gupta, Ranjan		
Program Officer	Stemmy, Erik J.		
Grants Specialist	Greer, Jenny L		
FOREIGN	INDONESIA		
Clearance Type:	New		

Support Year	Fiscal Year	Research Activities Status at Country	Estimated Total Cost at Country
1	2014	Inactive	0
2	2015	Inactive	0
3	2016	Active	3000
4	2017	Active	0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-05

Application Status:	Awarded. Non-fellowships only	Foreign	Domestic with Foreign Component
PD/PI Name:	DASZAK, PETER	Project Title:	Understanding the Risk of Bat Coronavirus Emergence
Institution:	ECOHEALTH ALLIANCE, INC.		

5	2018	Active	0
Total			3000

Collaborator	Pamungkas, Joko	Involve Humans:	No
Institution/Site:	Primate Research Center at Bogor Agricultural University	FWA	Established
Phone:	(b) (6)	Involve Animals:	Yes
Email:	(b) (6)	Animal	Established
Address:	JalanLodayall/5 Bogor 16151		

Support Year	Fiscal Year	Research Activities Status at Site	Estimated Total Cost at
1	2014	Inactive	0
2	2015	Inactive	0
3	2016	Active	0
4	2017	Active	0
5	2018	Active	0
Total			0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-05

Application Status: Awarded. Non-fellowships only Foreign Domestic with Foreign Component
 PD/PI Name: DASZAK, PETER Project Title: Understanding the Risk of Bat Coronavirus Emergence
 Institution: ECOHEALTH ALLIANCE, INC.

Clearance 212151

STATUS AND ACTION			
Action Date	Performed By	Status	Action Comments
3/27/17 10:00 PM	AUTO_APPROVAL	Approved	
3/13/17 11:22 AM	Officer, Jackie	Pending State Department Review	
3/13/17 10:15 AM	Bernabe, Gayle	Pending Agency Review	
3/2/17 3:32 PM	Stemmy, Erik	Initiated	

STATE DEPARTMENT CLEARANCE

Research

The aims of this research project are to examine the mechanism through which coronaviruses jump from animal hosts/reservoirs to humans (spillover events). To accomplish this work the PI and his team will conduct detailed surveillance for coronaviruses at eight sites throughout in Asia (China, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Thailand, and Vietnam). Sampling sites will include urban centers, rural areas, and live animal markets. Samples will be collected from animals from each of these sites, and will be analyzed to determine what coronaviruses are present, and whether the viruses are able to infect humans.

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Contact Details:

	Contact	Email	Phone
IC Contact	Bernabe, Gayle	(b) (6)	
Agency Contact	Chung, Tina		
Program Officer	Stemmy, Erik J.		
Grants Specialist	Greer, Jenny L		
FOREIGN	LAOS		
Clearance Type:	New		

Support Year	Fiscal Year	Research Activities Status at Country	Estimated Total Cost at Country
1	2014	Inactive	0
2	2015	Inactive	0
3	2016	Active	3000
4	2017	Active	0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-05

Application Status:	Awarded. Non-fellowships only	Foreign	Domestic with Foreign Component
PD/PI Name:	DASZAK, PETER	Project Title:	Understanding the Risk of Bat Coronavirus Emergence
Institution:	ECOHEALTH ALLIANCE, INC.		

5	2018	Active	0
Total			3000

Collaborator	Theppangna, Walthana	Involve Humans:	No
Institution/Site:	National Animal Health Laboratory	FWA	Established
Phone:	(b) (6)	Involve Animals:	Yes
Email:	(b) (6)	Animal	Established
Address:	Department of Livestock and Fisheries Ministry of Agriculture and Forestry Vientiane		

Support Year	Fiscal Year	Research Activities Status at Site	Estimated Total Cost at
1	2014	Inactive	0
2	2015	Inactive	0
3	2016	Active	0
4	2017	Active	0
5	2018	Active	0
Total			0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-05

Application Status: Awarded. Non-fellowships only **Foreign** Domestic with Foreign Component
PD/PI Name: DASZAK, PETER **Project Title:** Understanding the Risk of Bat Coronavirus Emergence
Institution: ECOHEALTH ALLIANCE, INC.

Clearance 212152

STATUS AND ACTION			
Action Date	Performed By	Status	Action Comments
3/27/17 10:00 PM	AUTO_APPROVAL	Approved	
3/13/17 10:13 AM	Officer, Jackie	Pending State Department Review	
3/13/17 10:12 AM	Bernabe, Gayle	Pending Agency Review	
3/2/17 3:32 PM	Stemmy, Erik	Initiated	

STATE DEPARTMENT CLEARANCE

Research

The aims of this research project are to examine the mechanism through which coronaviruses jump from animal hosts/reservoirs to humans (spillover events). To accomplish this work the PI and his team will conduct detailed surveillance for coronaviruses at eight sites throughout in Asia (China, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Thailand, and Vietnam). Sampling sites will include urban centers, rural areas, and live animal markets. Samples will be collected from animals from each of these sites, and will be analyzed to determine what coronaviruses are present, and whether the viruses are able to infect humans.

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Contact Details:

	Contact	Email	Phone
IC Contact	Bernabe, Gayle		(b) (6)
Agency Contact	Chung, Tina		
Program Officer	Stemmy, Erik J.		
Grants Specialist	Greer, Jenny L		

FOREIGN MALAYSIA
Clearance Type: New

Support Year	Fiscal Year	Research Activities Status at Country	Estimated Total Cost at Country
1	2014	Inactive	0
2	2015	Inactive	0
3	2016	Active	3000
4	2017	Active	0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-05

Application Status:	Awarded. Non-fellowships only	Foreign	Domestic with Foreign Component
PD/PI Name:	DASZAK, PETER	Project Title:	Understanding the Risk of Bat Coronavirus Emergence
Institution:	ECOHEALTH ALLIANCE, INC.		

5	2018	Active	0
Total			3000

Collaborator	Tom, Hughes	Involve Humans:	No
Institution/Site:	Conservation Medicine, Ltd	FWA	Established
Phone:	(b) (6)	Involve Animals:	Yes
Email:	(b) (6)	Animal	Established
Address:	Suite 4A, Level 4, Main Office Tower Financial Park Complex Bandar Labuan Federal Territory of Labuan		

Support Year	Fiscal Year	Research Activities Status at Site	Estimated Total Cost at
1	2014	Inactive	0
2	2015	Inactive	0
3	2016	Active	0
4	2017	Active	0
5	2018	Active	0
Total			0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-05

Application Status: Awarded. Non-fellowships only Foreign Domestic with Foreign Component
 PD/PI Name: DASZAK, PETER Project Title: Understanding the Risk of Bat Coronavirus Emergence
 Institution: ECOHEALTH ALLIANCE, INC.

Clearance 212154

STATUS AND ACTION			
Action Date	Performed By	Status	Action Comments
3/17/17 5:14 AM	Frater, Eric	Approved	(b) (5)
3/13/17 10:13 AM	Officer, Jackie	Pending State Department Review	
3/13/17 10:09 AM	Bernabe, Gayle	Pending Agency Review	
3/2/17 3:37 PM	Stemmy, Erik	Initiated	

STATE DEPARTMENT CLEARANCE

Research

The aims of this research project are to examine the mechanism through which coronaviruses jump from animal hosts/reservoirs to humans (spillover events). To accomplish this work the PI and his team will conduct detailed surveillance for coronaviruses at eight sites throughout in Asia (China, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Thailand, and Vietnam). Sampling sites will include urban centers, rural areas, and live animal markets. Samples will be collected from animals from each of these sites, and will be analyzed to determine what coronaviruses are present, and whether the viruses are able to infect humans.

The investigators plan to collect samples from bats (900 samples total across all sites), rodents (900 samples total across all sites), and small carnivores such as palm civets and ferret badgers (500 samples total across all sites). Animals will be captured and lightly anesthetized if necessary. They will be swabbed (mouth/nose, urogenital tract, and rectum), and a small amount of blood will be collected. If available, feces and urine will also be collected. All wild animals will be released unharmed after sampling. Of animals that are collected from live markets, a maximum of two per species may be humanely euthanized for organ tissue sampling. All animal work will be performed by trained individuals in accordance with the American Veterinary Medical Association guidelines, and the project is overseen by veterinarians. This work has also been reviewed and approved by the investigator's Institutional Animal Care and Use Committee.

Contact Details:

	Contact	Email	Phone
IC Contact	Bernabe, Gayle	(b) (6)	
Agency Contact	Gupta, Ranjan		
Program Officer	Stemmy, Erik J.		
Grants Specialist	Greer, Jenny L		
FOREIGN	THAILAND		
Clearance Type:	New		

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-05

Application Status: Awarded. Non-fellowships only

Foreign

Domestic with Foreign Component

PD/PI Name: DASZAK, PETER

Project Title:

Understanding the Risk of Bat
Coronavirus Emergence

Institution: ECOHEALTH ALLIANCE, INC.

Support Year	Fiscal Year	Research Activities Status at Country	Estimated Total Cost at Country
1	2014	Inactive	0
2	2015	Inactive	0
3	2016	Active	3000
4	2017	Active	0
5	2018	Active	0
Total			3000

Collaborator	Wacharapluesadee, Supaporn	Involve Humans:	No
Institution/Site:	King Chulalongkorn Memorial Hospital	FWA	Established
Phone:	(b) (6)	Involve Animals:	Yes
Email:	(b) (6)	Animal	Established
Address:	Neuroscience Center for Research and Development Rama 4 Road Bangkok Patumwan 10330		

Support Year	Fiscal Year	Research Activities Status at Site	Estimated Total Cost at
1	2014	Inactive	0
2	2015	Inactive	0
3	2016	Active	0
4	2017	Active	0
5	2018	Active	0
Total			0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-05

Application Status: Awarded. Non-fellowships only **Foreign** Domestic with Foreign Component
PD/PI Name: DASZAK, PETER **Project Title:** Understanding the Risk of Bat Coronavirus Emergence
Institution: ECOHEALTH ALLIANCE, INC.

Clearance 212155

STATUS AND ACTION			
Action Date	Performed By	Status	Action Comments
3/27/17 10:00 PM	AUTO_APPROVAL	Approved	
3/13/17 10:13 AM	Officer, Jackie	Pending State Department Review	
3/13/17 10:05 AM	Bernabe, Gayle	Pending Agency Review	
3/2/17 3:38 PM	Stemmy, Erik	Initiated	

STATE DEPARTMENT CLEARANCE

Research

The aims of this research project are to examine the mechanism through which coronaviruses jump from animal hosts/reservoirs to humans (spillover events). To accomplish this work the PI and his team will conduct detailed surveillance for coronaviruses at eight sites throughout in Asia (China, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Thailand, and Vietnam). Sampling sites will include urban centers, rural areas, and live animal markets. Samples will be collected from animals from each of these sites, and will be analyzed to determine what coronaviruses are present, and whether the viruses are able to infect humans.

The investigators plan to collect samples from bats (900 samples total across all sites), rodents (900 samples total across all sites), and small carnivores such as palm civets and ferret badgers (500 samples total across all sites). Animals will be captured and lightly anesthetized if necessary. They will be swabbed (mouth/nose, urogenital tract, and rectum), and a small amount of blood will be collected. If available, feces and urine will also be collected. All wild animals will be released unharmed after sampling. Of animals that are collected from live markets, a maximum of two per species may be humanely euthanized for organ tissue sampling. All animal work will be performed by trained individuals in accordance with the American Veterinary Medical Association guidelines, and the project is overseen by veterinarians. This work has also been reviewed and approved by the investigator's Institutional Animal Care and Use Committee.

Contact Details:

	Contact	Email	Phone
IC Contact	Bernabe, Gayle		(b) (6)
Agency Contact	Chung, Tina		
Program Officer	Stemmy, Erik J.		
Grants Specialist	Greer, Jenny L		

FOREIGN VIETNAM
Clearance Type: New

Support Year	Fiscal Year	Research Activities Status at Country	Estimated Total Cost at Country
1	2014	Inactive	0
2	2015	Inactive	0
3	2016	Active	3000
4	2017	Active	0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-05

Application Status:	Awarded. Non-fellowships only	Foreign	Domestic with Foreign Component
PD/PI Name:	DASZAK, PETER	Project Title:	Understanding the Risk of Bat Coronavirus Emergence
Institution:	ECOHEALTH ALLIANCE, INC.		

5	2018	Active	0
Total			3000

Collaborator	Nam, Nguyen Huu	Involve Humans:	No
Institution/Site:	Hanoi Agricultural University	FWA	Established
Phone:	(b) (6)	Involve Animals:	Yes
Email:	(b) (6)	Animal	Established
Address:	Faculty of Animal and Veterinary Science Trauquy Hanoi Gialam		

Support Year	Fiscal Year	Research Activities Status at Site	Estimated Total Cost at
1	2014	Inactive	0
2	2015	Inactive	0
3	2016	Active	0
4	2017	Active	0
5	2018	Active	0
Total			0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-05

Application Status:	Awarded. Non-fellowships only	Foreign	Domestic with Foreign Component
PD/PI Name:	DASZAK, PETER	Project Title:	Understanding the Risk of Bat Coronavirus Emergence
Institution:	ECOHEALTH ALLIANCE, INC.		

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-04

Application Status: Awarded. Non-fellowships only Foreign Domestic with Foreign Component
 PD/PI Name: DASZAK, PETER Project Title: Understanding the Risk of Bat Coronavirus Emergence
 Institution: ECOHEALTH ALLIANCE, INC.

Clearance 212153

STATUS AND ACTION			
Action Date	Performed By	Status	Action Comments
4/10/17 10:00 PM	AUTO_APPROVAL	Approved	
3/27/17 10:44 AM	Officer, Jackie	Pending State Department Review	
3/25/17 12:23 PM	Bernabe, Gayle	Pending Agency Review	(b) (5)
3/2/17 3:35 PM	Stemmy, Erik	Initiated	

STATE DEPARTMENT CLEARANCE

Research

The aims of this research project are to examine the mechanism through which coronaviruses jump from animal hosts/reservoirs to humans (spillover events). To accomplish this work the PI and his team will conduct detailed surveillance for coronaviruses at eight sites throughout in Asia (China, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Thailand, and Vietnam). Sampling sites will include urban centers, rural areas, and live animal markets. Samples will be collected from animals from each of these sites, and will be analyzed to determine what coronaviruses are present, and whether the viruses are able to infect humans.

The investigators plan to collect samples from bats (900 samples total across all sites), rodents (900 samples total across all sites), and small carnivores such as palm civets and ferret badgers (500 samples total across all sites). Animals will be captured and lightly anesthetized if necessary. They will be swabbed (mouth/nose, urogenital tract, and rectum), and a small amount of blood will be collected. If available, feces and urine will also be collected. All wild animals will be released unharmed after sampling. Of animals that are collected from live markets, a maximum of two per species may be humanely euthanized for organ tissue sampling. All animal work will be performed by trained individuals in accordance with the American Veterinary Medical Association guidelines, and the project is overseen by veterinarians. This work has also been reviewed and approved by the investigator's Institutional Animal Care and Use Committee.

Contact Details:

	Contact	Email	Phone
IC Contact	Bernabe, Gayle	(b) (6)	
Agency Contact	Gupta, Ranjan		
Program Officer	Stemmy, Erik J.		
Grants Specialist	Greer, Jenny L		

FOREIGN BURMA
 Clearance Type: New

Support Year	Fiscal Year	Research Activities Status at Country	Estimated Total Cost at Country
1	2014	Inactive	0
2	2015	Inactive	0
3	2016	Active	3000

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-04

Application Status:	Awarded. Non-fellowships only	Foreign	Domestic with Foreign Component
PD/PI Name:	DASZAK, PETER	Project Title:	Understanding the Risk of Bat Coronavirus Emergence
Institution:	ECOHEALTH ALLIANCE, INC.		

4	2017	Active	0
5	2018	Active	0
Total			3000

Collaborator	Toe, Aung Than	Involve Humans:	No
Institution/Site:	San Pya Clinic	FWA	Established
Phone:	(b) (6)	Involve Animals:	Yes
Email:	(b) (6)	Animal	Established
Address:	20/256 Insein Road Yangon 11051		

Support Year	Fiscal Year	Research Activities Status at Site	Estimated Total Cost at
1	2014	Inactive	0
2	2015	Inactive	0
3	2016	Active	0
4	2017	Active	0
5	2018	Active	0
Total			0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-04

Application Status: Awarded. Non-fellowships only **Foreign** Domestic with Foreign Component
PD/PI Name: DASZAK, PETER **Project Title:** Understanding the Risk of Bat Coronavirus Emergence
Institution: ECOHEALTH ALLIANCE, INC.

Clearance 212148

STATUS AND ACTION			
Action Date	Performed By	Status	Action Comments
3/27/17 10:00 PM	AUTO_APPROVAL	Approved	
3/13/17 11:21 AM	Officer, Jackie	Pending State Department Review	
3/13/17 10:21 AM	Bernabe, Gayle	Pending Agency Review	
3/2/17 3:16 PM	Stemmy, Erik	Initiated	

STATE DEPARTMENT CLEARANCE

Research

The aims of this research project are to examine the mechanism through which coronaviruses jump from animal hosts/reservoirs to humans (spillover events). To accomplish this work the PI and his team will conduct detailed surveillance for coronaviruses at eight sites throughout in Asia (China, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Thailand, and Vietnam). Sampling sites will include urban centers, rural areas, and live animal markets. Samples will be collected from animals from each of these sites, and will be analyzed to determine what coronaviruses are present, and whether the viruses are able to infect humans.

The investigators plan to collect samples from bats (900 samples total across all sites), rodents (900 samples total across all sites), and small carnivores such as palm civets and ferret badgers (500 samples total across all sites). Animals will be captured and lightly anesthetized if necessary. They will be swabbed (mouth/nose, urogenital tract, and rectum), and a small amount of blood will be collected. If available, feces and urine will also be collected. All wild animals will be released unharmed after sampling. Of animals that are collected from live markets, a maximum of two per species may be humanely euthanized for organ tissue sampling. All animal work will be performed by trained individuals in accordance with the American Veterinary Medical Association guidelines, and the project is overseen by veterinarians. This work has also been reviewed and approved by the investigator's Institutional Animal Care and Use Committee.

Contact Details:

	Contact	Email	Phone
IC Contact	Bernabe, Gayle		(b) (6)
Agency Contact	Chung, Tina		
Program Officer	Stemmy, Erik J.		
Grants Specialist	Greer, Jenny L		
FOREIGN	CAMBODIA		
Clearance Type:	New		

Support Year	Fiscal Year	Research Activities Status at Country	Estimated Total Cost at Country
1	2014	Inactive	0
2	2015	Inactive	0
3	2016	Active	3000
4	2017	Active	0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-04

Application Status:	Awarded. Non-fellowships only	Foreign	Domestic with Foreign Component
PD/PI Name:	DASZAK, PETER	Project Title:	Understanding the Risk of Bat Coronavirus Emergence
Institution:	ECOHEALTH ALLIANCE, INC.		

5	2018	Active	0
Total			3000

Collaborator	Duong, Veasna	Involve Humans:	No
Institution/Site:	Institut Pasteur du Cambodge	FWA	Established
Phone:	(b) (6)	Involve Animals:	Yes
Email:	(b) (6)	Animal	Established
Address:	No. 5 Monivong Boulevard P.O. Box 983 Phnom Penh		

Support Year	Fiscal Year	Research Activities Status at Site	Estimated Total Cost at
1	2014	Inactive	0
2	2015	Inactive	0
3	2016	Active	0
4	2017	Active	0
5	2018	Active	0
Total			0

Application Status:	Awarded, Non-fellowships only	Foreign	Domestic with Foreign Component
PD/PI Name:	DASZAK, PETER	Project Title:	Understanding the Risk of Bat Coronavirus Emergence
Institution:	ECOHEALTH ALLIANCE, INC.		

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STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-04

Application Status:	Awarded. Non-fellowships only	Foreign	Domestic with Foreign Component
PD/PI Name:	DASZAK, PETER	Project Title:	Understanding the Risk of Bat Coronavirus Emergence
Institution:	ECOHEALTH ALLIANCE, INC.		

			(b) (5)
2/21/14 4:18 PM	Chung, Tina	Returned by Agency - Need Additional Information	
2/21/14 3:06 PM	Bernabe, Gayle	Pending Agency Review	

STATE DEPARTMENT CLEARANCE

Research

The aims of this research project are to examine the mechanism through which coronaviruses jump from animal hosts/reservoirs to humans (spillover events). To accomplish this work the Principal Investigator (PI) and his team will conduct detailed surveillance for coronaviruses at several sites throughout China including urban centers, rural areas, and live animal markets. Samples from each of these sites will be analyzed to determine what coronaviruses are present, and whether the viruses are able to infect humans. Blood samples will be obtained and interviews will be conducted with people who are highly exposed to wildlife. The researchers will also look at the potential for viral evolution in the context of the live animal market to investigate the emergence potential of novel coronaviruses, and to describe the dynamics of viral transmission from animal to human. Beginning in year 2 of the project, the researchers will interview human subjects over the age of 18 in the study sites, and the PI estimates 2,460 participants to be recruited. Participation will include answering questions regarding exposure to animals as well as blood sample collection. Informed consent for participation will be obtained from all human subjects and confidentiality of subjects will be protected, in compliance with NIH and in-country guidelines under the assurance number provided. All human samples will be analyzed at the provincial Centers for Disease Control and Prevention in Guangzhou.

Description of Animal Work in this project. Surveillance will be conducted in rural and urban (markets) sites in Guangxi, Yunnan, Fujian, and Guangdong Provinces. Wildlife samples will be collected from bat a variety of species. A minimum of 30 individual samples from 30 different bat species from the following families: Rhinolophidae, Hipposideridae, Vespertilionidae, Molossidae, and Pteropodidae. In market areas the investigators will opportunistically sample

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-04

Application Status:	Awarded. Non-fellowships only	Foreign	Domestic with Foreign Component
PD/PI Name:	DASZAK, PETER	Project Title:	Understanding the Risk of Bat Coronavirus Emergence
Institution:	ECOHEALTH ALLIANCE, INC.		

available insectivorous and frugivorous bats, as well as other mammals if available. Samples will include fresh feces or rectal swabs, saliva or oral swab, and blood. Nearly all animals will be released after samples are collected, however a small number of bats will be euthanized to collect internal organ samples for analysis. All work will be approved and conducted under IACUC supervision. Analysis of all animal samples will be conducted at the Wuhan Institute of Virology.

This information will be used to describe the risk of spillover events at the human-animal interface and to create detailed computer models that describe these events. These models could inform public health decisions by providing a means to investigate the risk of spillover events and help us understand what factors allow an animal coronavirus to evolve and jump into human populations.

Contact Details:

	Contact	Email	Phone
IC Contact	Bernabe, Gayle		(b) (6)
Agency Contact	Chung, Tina		
Program Officer	Stemmy, Erik J.		
Grants Specialist	Pone, Laura A		
FOREIGN	CHINA		
Clearance Type:	New		

Support Year	Fiscal Year	Research Activities Status at Country	Estimated Total Cost at Country
1	2014	Active	227663
2	2015	Active	211699
3	2016	Active	213239
4	2017	Active	201422
5	2018	Active	191576
Total			1045599

Collaborator	Zhu, Guanjin	Involve Humans:	Yes
Institution/Site:	Guangdong Entomological Institute (ECNU)	FWA	Pending
Phone:	(b) (6)	Involve Animals:	Yes
Email:	(b) (6)	Animal	Pending
Address:	Room 1707, Building 622 3663 Zhongshanbei Rd Shanghai Putuo District 200026		

Support Year	Fiscal Year	Research Activities Status at Site	Estimated Total Cost at
1	2014	Active	0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-04

Application Status:	Awarded. Non-fellowships only	Foreign	Domestic with Foreign Component
PD/PI Name:	DASZAK, PETER	Project Title:	Understanding the Risk of Bat Coronavirus Emergence
Institution:	ECOHEALTH ALLIANCE, INC.		

2	2015	Active	0
3	2016	Active	0
4	2017	Active	0
5	2018	Active	0
Total			0

Collaborator	Shi, ZhengLi	Involve Humans:	Yes
Institution/Site:	Wuhan Institute of Virology	FWA	Pending
Phone:	(b) (6)	Involve Animals:	Yes
Email:	(b) (6)	Animal	Pending
Address:	Xiao Hong Shan, No. 44 Wuchang District Wuhan 430071		

Support Year	Fiscal Year	Research Activities Status at Site	Estimated Total Cost at
1	2014	Active	133595
2	2015	Active	139015
3	2016	Active	159122
4	2017	Active	159122
5	2018	Active	159122
Total			749976

Collaborator	Zhang, ShuYi	Involve Humans:	Yes
Institution/Site:	East China Normal University	FWA	Pending
Phone:	(b) (6)	Involve Animals:	Yes
Email:	(b) (6)	Animal	Pending
Address:	3663 Zhongshan Beilu Shanghai 200062		

Support Year	Fiscal Year	Research Activities Status at Site	Estimated Total Cost at
1	2014	Active	94068

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-04

Application Status:	Awarded. Non-fellowships only	Foreign	Domestic with Foreign Component
PD/PI Name:	DASZAK, PETER	Project Title:	Understanding the Risk of Bat Coronavirus Emergence
Institution:	ECOHEALTH ALLIANCE, INC.		

2	2015	Active	72684
3	2016	Active	54117
4	2017	Active	42300
5	2018	Active	32454
Total			295623

Collaborator	Ke, Changwen	Involve Humans:	Yes
Institution/Site:	Center for Disease Control and Prevention of Guangdong	FWA	Pending
Phone:	(b) (6)	Involve Animals:	Yes
Email:	(b) (6)	Animal	Pending
Address:	176 Xigang Xilu Guangzhou 5103000		

Support Year	Fiscal Year	Research Activities Status at Site	Estimated Total Cost at
1	2014	Active	0
2	2015	Active	0
3	2016	Active	0
4	2017	Active	0
5	2018	Active	0
Total			0

Collaborator	Zhang, Yun-Zhi	Involve Humans:	Yes
Institution/Site:	Yunnan Institute of Endemic Diseases Control and Prevention	FWA	Pending
Phone:	(b) (6)	Involve Animals:	Yes
Email:	(b) (6)	Animal	Pending
Address:	33 Wenhua Road Dali 650201		

Support Year	Fiscal Year	Research Activities Status at Site	Estimated Total Cost at
1	2014	Active	0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-04

Application Status:	Awarded. Non-fellowships only	Foreign	Domestic with Foreign Component
PD/PI Name:	DASZAK, PETER	Project Title:	Understanding the Risk of Bat Coronavirus Emergence
Institution:	ECOHEALTH ALLIANCE, INC.		

2	2015	Active	0
3	2016	Active	0
4	2017	Active	0
5	2018	Active	0
Total			0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-04

Application Status: Awarded. Non-fellowships only **Foreign** Domestic with Foreign Component
PD/PI Name: DASZAK, PETER **Project Title:** Understanding the Risk of Bat Coronavirus Emergence
Institution: ECOHEALTH ALLIANCE, INC.

Clearance 211200

STATUS AND ACTION			
Action Date	Performed By	Status	Action Comments
11/29/16 4:04 AM	Yao, Lingyun	Approved	
10/24/16 11:25 AM	Officer, Jackie	Pending State Department Review	
10/24/16 10:07 AM	Bernabe, Gayle	Pending Agency Review	
10/20/16 1:56 PM	Stemmy, Erik	Saved	
10/12/16 3:35 PM	Stemmy, Erik	Initiated	

STATE DEPARTMENT CLEARANCE

Research

The aims of this research project are to examine the mechanism through which coronaviruses jump from animal hosts/reservoirs to humans (spillover events). To accomplish this work the PI and his team will conduct detailed surveillance for coronaviruses at several sites throughout China including urban centers, rural areas, and live animal markets. Samples from each of these sites will be analyzed to determine what coronaviruses are present, and whether the viruses are able to infect humans. Blood samples will be obtained and interviews will be conducted with people who are highly exposed to wildlife. The researchers will also look at the potential for viral evolution in the context of the live animal market to investigate the emergence potential of novel coronaviruses, and to describe the dynamics of viral transmission from animal to human. The researchers will interview human subjects over the age of 18 in the study sites, and the PI estimates 2,460 participants to be recruited. Participation will include answering questions regarding exposure to animals as well as blood sample collection. Informed consent for participation will be obtained from all human subjects and confidentiality of subjects will be protected, in compliance with NIH and in-country guidelines under the assurance number provided. All human samples will be analyzed at the provincial Centers for Disease Control and Prevention in Guangzhou.

This information will be used to describe the risk of spillover events at the human-animal interface and to create detailed computer models that describe these events. These models could inform public health decisions by providing a means to investigate the risk of spillover events and help us understand what factors allow an animal coronavirus to evolve and jump into human populations.

Contact Details:

	Contact	Email	Phone
IC Contact	Bernabe, Gayle	(b) (6)	
Agency Contact	Chung, Tina		
Program Officer	Stemmy, Erik J.		
Grants Specialist	Greer, Jenny L.		
FOREIGN	CHINA		
Clearance Type:	New		

Support Year	Fiscal Year	Research Activities Status at Country	Estimated Total Cost at Country
1	2014	Active	227663
2	2015	Active	211699

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-04

Application Status:	Awarded. Non-fellowships only	Foreign	Domestic with Foreign Component
PD/PI Name:	DASZAK, PETER	Project Title:	Understanding the Risk of Bat Coronavirus Emergence
Institution:	ECOHEALTH ALLIANCE, INC.		

3	2016	Active	213239
4	2017	Active	201422
5	2018	Active	191576
Total			1045599

Collaborator	Li, Shiyue	Involve Humans:	Yes
Institution/Site:	School of Public Health, Wuhan University	FWA	Established
Phone:	(b) (6)	Involve Animals:	No
Email:	(b) (6)	Animal	Not Specified
Address:	115 Donghu Road Wuchang Wuhan Hubei 430071		

Support Year	Fiscal Year	Research Activities Status at Site	Estimated Total Cost at
1	2014	Inactive	0
2	2015	Inactive	0
3	2016	Active	0
4	2017	Active	0
5	2018	Active	0
Total			0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-04

Application Status: Awarded. Non-fellowships only **Foreign** Domestic with Foreign Component
PD/PI Name: DASZAK, PETER **Project Title:** Understanding the Risk of Bat Coronavirus Emergence
Institution: ECOHEALTH ALLIANCE, INC.

Clearance 212150

STATUS AND ACTION			
Action Date	Performed By	Status	Action Comments
3/27/17 10:00 PM	AUTO_APPROVAL	Approved	
3/13/17 11:22 AM	Officer, Jackie	Pending State Department Review	
3/13/17 10:17 AM	Bernabe, Gayle	Pending Agency Review	
3/2/17 3:23 PM	Stemmy, Erik	Initiated	

STATE DEPARTMENT CLEARANCE

Research

The aims of this research project are to examine the mechanism through which coronaviruses jump from animal hosts/reservoirs to humans (spillover events). To accomplish this work the PI and his team will conduct detailed surveillance for coronaviruses at eight sites throughout in Asia (China, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Thailand, and Vietnam). Sampling sites will include urban centers, rural areas, and live animal markets. Samples will be collected from animals from each of these sites, and will be analyzed to determine what coronaviruses are present, and whether the viruses are able to infect humans.

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Contact Details:

	Contact	Email	Phone
IC Contact	Bernabe, Gayle		(b) (6)
Agency Contact	Gupta, Ranjan		
Program Officer	Stemmy, Erik J.		
Grants Specialist	Greer, Jenny L		
FOREIGN	INDONESIA		
Clearance Type:	New		

Support Year	Fiscal Year	Research Activities Status at Country	Estimated Total Cost at Country
1	2014	Inactive	0
2	2015	Inactive	0
3	2016	Active	3000
4	2017	Active	0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-04

Application Status: Awarded. Non-fellowships only Foreign Domestic with Foreign Component
 PD/PI Name: DASZAK, PETER Project Title: Understanding the Risk of Bat Coronavirus Emergence
 Institution: ECOHEALTH ALLIANCE, INC.

5	2018	Active	0
Total			3000

Collaborator	Pamungkas, Joko	Involve Humans:	No
Institution/Site:	Primate Research Center at Bogor Agricultural University	FWA	Established
Phone:	(b) (6)	Involve Animals:	Yes
Email:	(b) (6)	Animal	Established
Address:	JalanLodayall/5 Bogor 16151		

Support Year	Fiscal Year	Research Activities Status at Site	Estimated Total Cost at
1	2014	Inactive	0
2	2015	Inactive	0
3	2016	Active	0
4	2017	Active	0
5	2018	Active	0
Total			0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-04

Application Status: Awarded. Non-fellowships only **Foreign** Domestic with Foreign Component
PD/PI Name: DASZAK, PETER **Project Title:** Understanding the Risk of Bat Coronavirus Emergence
Institution: ECOHEALTH ALLIANCE, INC.

Clearance 212151

STATUS AND ACTION			
Action Date	Performed By	Status	Action Comments
3/27/17 10:00 PM	AUTO_APPROVAL	Approved	
3/13/17 11:22 AM	Officer, Jackie	Pending State Department Review	
3/13/17 10:15 AM	Bernabe, Gayle	Pending Agency Review	
3/2/17 3:32 PM	Stemmy, Erik	Initiated	

STATE DEPARTMENT CLEARANCE

Research

The aims of this research project are to examine the mechanism through which coronaviruses jump from animal hosts/reservoirs to humans (spillover events). To accomplish this work the PI and his team will conduct detailed surveillance for coronaviruses at eight sites throughout in Asia (China, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Thailand, and Vietnam). Sampling sites will include urban centers, rural areas, and live animal markets. Samples will be collected from animals from each of these sites, and will be analyzed to determine what coronaviruses are present, and whether the viruses are able to infect humans.

The investigators plan to collect samples from bats (900 samples total across all sites), rodents (900 samples total across all sites), and small carnivores such as palm civets and ferret badgers (500 samples total across all sites). Animals will be captured and lightly anesthetized if necessary. They will be swabbed (mouth/nose, urogenital tract, and rectum), and a small amount of blood will be collected. If available, feces and urine will also be collected. All wild animals will be released unharmed after sampling. Of animals that are collected from live markets, a maximum of two per species may be humanely euthanized for organ tissue sampling. All animal work will be performed by trained individuals in accordance with the American Veterinary Medical Association guidelines, and the project is overseen by veterinarians. This work has also been reviewed and approved by the investigator's Institutional Animal Care and Use Committee.

Contact Details:

	Contact	Email	Phone
IC Contact	Bernabe, Gayle	(b) (6)	
Agency Contact	Chung, Tina		
Program Officer	Stemmy, Erik J.		
Grants Specialist	Greer, Jenny L		
FOREIGN	LAOS		
Clearance Type:	New		

Support Year	Fiscal Year	Research Activities Status at Country	Estimated Total Cost at Country
1	2014	Inactive	0
2	2015	Inactive	0
3	2016	Active	3000
4	2017	Active	0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-04

Application Status:	Awarded. Non-fellowships only	Foreign	Domestic with Foreign Component
PD/PI Name:	DASZAK, PETER	Project Title:	Understanding the Risk of Bat Coronavirus Emergence
Institution:	ECOHEALTH ALLIANCE, INC.		

5	2018	Active	0
Total			3000

Collaborator	Theppangna, Walthana	Involve Humans:	No
Institution/Site:	National Animal Health Laboratory	FWA	Established
Phone:	(b) (6)	Involve Animals:	Yes
Email:	(b) (6)	Animal	Established
Address:	Department of Livestock and Fisheries Ministry of Agriculture and Forestry Vientiane		

Support Year	Fiscal Year	Research Activities Status at Site	Estimated Total Cost at
1	2014	Inactive	0
2	2015	Inactive	0
3	2016	Active	0
4	2017	Active	0
5	2018	Active	0
Total			0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-04

Application Status: Awarded. Non-fellowships only **Foreign** Domestic with Foreign Component
PD/PI Name: DASZAK, PETER **Project Title:** Understanding the Risk of Bat Coronavirus Emergence
Institution: ECOHEALTH ALLIANCE, INC.

Clearance 212152

STATUS AND ACTION			
Action Date	Performed By	Status	Action Comments
3/27/17 10:00 PM	AUTO_APPROVAL	Approved	
3/13/17 10:13 AM	Officer, Jackie	Pending State Department Review	
3/13/17 10:12 AM	Bernabe, Gayle	Pending Agency Review	
3/2/17 3:32 PM	Stemmy, Erik	Initiated	

STATE DEPARTMENT CLEARANCE

Research

The aims of this research project are to examine the mechanism through which coronaviruses jump from animal hosts/reservoirs to humans (spillover events). To accomplish this work the PI and his team will conduct detailed surveillance for coronaviruses at eight sites throughout in Asia (China, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Thailand, and Vietnam). Sampling sites will include urban centers, rural areas, and live animal markets. Samples will be collected from animals from each of these sites, and will be analyzed to determine what coronaviruses are present, and whether the viruses are able to infect humans.

The investigators plan to collect samples from bats (900 samples total across all sites), rodents (900 samples total across all sites), and small carnivores such as palm civets and ferret badgers (500 samples total across all sites). Animals will be captured and lightly anesthetized if necessary. They will be swabbed (mouth/nose, urogenital tract, and rectum), and a small amount of blood will be collected. If available, feces and urine will also be collected. All wild animals will be released unharmed after sampling. Of animals that are collected from live markets, a maximum of two per species may be humanely euthanized for organ tissue sampling. All animal work will be performed by trained individuals in accordance with the American Veterinary Medical Association guidelines, and the project is overseen by veterinarians. This work has also been reviewed and approved by the investigator's Institutional Animal Care and Use Committee.

Contact Details:

	Contact	Email	Phone
IC Contact	Bernabe, Gayle		(b) (6)
Agency Contact	Chung, Tina		
Program Officer	Stemmy, Erik J.		
Grants Specialist	Greer, Jenny L		
FOREIGN	MALAYSIA		
Clearance Type:	New		

Support Year	Fiscal Year	Research Activities Status at Country	Estimated Total Cost at Country
1	2014	Inactive	0
2	2015	Inactive	0
3	2016	Active	3000
4	2017	Active	0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-04

Application Status:	Awarded. Non-fellowships only	Foreign	Domestic with Foreign Component
PD/PI Name:	DASZAK, PETER	Project Title:	Understanding the Risk of Bat Coronavirus Emergence
Institution:	ECOHEALTH ALLIANCE, INC.		

5	2018	Active	0
Total			3000

Collaborator	Tom, Hughes	Involve Humans:	No
Institution/Site:	Conservation Medicine, Ltd	FWA	Established
Phone:	(b) (6)	Involve Animals:	Yes
Email:	(b) (6)	Animal	Established
Address:	Suite 4A, Level 4, Main Office Tower Financial Park Complex Bandar Labuan Federal Territory of Labuan		

Support Year	Fiscal Year	Research Activities Status at Site	Estimated Total Cost at
1	2014	Inactive	0
2	2015	Inactive	0
3	2016	Active	0
4	2017	Active	0
5	2018	Active	0
Total			0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-04

Application Status: Awarded. Non-fellowships only **Foreign** Domestic with Foreign Component
PD/PI Name: DASZAK, PETER **Project Title:** Understanding the Risk of Bat Coronavirus Emergence
Institution: ECOHEALTH ALLIANCE, INC.

Clearance 212154

STATUS AND ACTION			
Action Date	Performed By	Status	Action Comments
3/17/17 5:14 AM	Frater, Eric	Approved	(b) (5)
3/13/17 10:13 AM	Officer, Jackie	Pending State Department Review	
3/13/17 10:09 AM	Bernabe, Gayle	Pending Agency Review	
3/2/17 3:37 PM	Stemmy, Erik	Initiated	

STATE DEPARTMENT CLEARANCE

Research

The aims of this research project are to examine the mechanism through which coronaviruses jump from animal hosts/reservoirs to humans (spillover events). To accomplish this work the PI and his team will conduct detailed surveillance for coronaviruses at eight sites throughout in Asia (China, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Thailand, and Vietnam). Sampling sites will include urban centers, rural areas, and live animal markets. Samples will be collected from animals from each of these sites, and will be analyzed to determine what coronaviruses are present, and whether the viruses are able to infect humans.

The investigators plan to collect samples from bats (900 samples total across all sites), rodents (900 samples total across all sites), and small carnivores such as palm civets and ferret badgers (500 samples total across all sites). Animals will be captured and lightly anesthetized if necessary. They will be swabbed (mouth/nose, urogenital tract, and rectum), and a small amount of blood will be collected. If available, feces and urine will also be collected. All wild animals will be released unharmed after sampling. Of animals that are collected from live markets, a maximum of two per species may be humanely euthanized for organ tissue sampling. All animal work will be performed by trained individuals in accordance with the American Veterinary Medical Association guidelines, and the project is overseen by veterinarians. This work has also been reviewed and approved by the investigator's Institutional Animal Care and Use Committee.

Contact Details:

	Contact	Email	Phone
IC Contact	Bernabe, Gayle	(b) (6)	
Agency Contact	Gupta, Ranjan		
Program Officer	Stemmy, Erik J.		
Grants Specialist	Greer, Jenny L.		
FOREIGN	THAILAND		
Clearance Type:	New		

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-04

Application Status: Awarded. Non-fellowships only

Foreign

Domestic with Foreign Component

PD/PI Name: DASZAK, PETER

Project Title:

Understanding the Risk of Bat
Coronavirus Emergence

Institution: ECOHEALTH ALLIANCE, INC.

Support Year	Fiscal Year	Research Activities Status at Country	Estimated Total Cost at Country
1	2014	Inactive	0
2	2015	Inactive	0
3	2016	Active	3000
4	2017	Active	0
5	2018	Active	0
Total			3000

Collaborator	Wacharapluesadee, Supaporn	Involve Humans:	No
Institution/Site:	King Chulalongkorn Memorial Hospital	FWA	Established
Phone:	(b) (6)	Involve Animals:	Yes
Email:	(b) (6)	Animal	Established
Address:	Neuroscience Center for Research and Development Rama 4 Road Bangkok Patumwan 10330		

Support Year	Fiscal Year	Research Activities Status at Site	Estimated Total Cost at
1	2014	Inactive	0
2	2015	Inactive	0
3	2016	Active	0
4	2017	Active	0
5	2018	Active	0
Total			0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-04

Application Status: Awarded. Non-fellowships only **Foreign** Domestic with Foreign Component
PD/PI Name: DASZAK, PETER **Project Title:** Understanding the Risk of Bat Coronavirus Emergence
Institution: ECOHEALTH ALLIANCE, INC.

Clearance 212155

STATUS AND ACTION			
Action Date	Performed By	Status	Action Comments
3/27/17 10:00 PM	AUTO_APPROVAL	Approved	
3/13/17 10:13 AM	Officer, Jackie	Pending State Department Review	
3/13/17 10:05 AM	Bernabe, Gayle	Pending Agency Review	
3/2/17 3:38 PM	Stemmy, Erik	Initiated	

STATE DEPARTMENT CLEARANCE

Research

The aims of this research project are to examine the mechanism through which coronaviruses jump from animal hosts/reservoirs to humans (spillover events). To accomplish this work the PI and his team will conduct detailed surveillance for coronaviruses at eight sites throughout in Asia (China, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Thailand, and Vietnam). Sampling sites will include urban centers, rural areas, and live animal markets. Samples will be collected from animals from each of these sites, and will be analyzed to determine what coronaviruses are present, and whether the viruses are able to infect humans.

The investigators plan to collect samples from bats (900 samples total across all sites), rodents (900 samples total across all sites), and small carnivores such as palm civets and ferret badgers (500 samples total across all sites). Animals will be captured and lightly anesthetized if necessary. They will be swabbed (mouth/nose, urogenital tract, and rectum), and a small amount of blood will be collected. If available, feces and urine will also be collected. All wild animals will be released unharmed after sampling. Of animals that are collected from live markets, a maximum of two per species may be humanely euthanized for organ tissue sampling. All animal work will be performed by trained individuals in accordance with the American Veterinary Medical Association guidelines, and the project is overseen by veterinarians. This work has also been reviewed and approved by the investigator's Institutional Animal Care and Use Committee.

Contact Details:

	Contact	Email	Phone
IC Contact	Bernabe, Gayle	(b) (6)	
Agency Contact	Chung, Tina		
Program Officer	Stemmy, Erik J.		
Grants Specialist	Greer, Jenny L		
FOREIGN	VIETNAM		
Clearance Type:	New		

Support Year	Fiscal Year	Research Activities Status at Country	Estimated Total Cost at Country
1	2014	Inactive	0
2	2015	Inactive	0
3	2016	Active	3000
4	2017	Active	0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-04

Application Status:	Awarded. Non-fellowships only	Foreign	Domestic with Foreign Component
PD/PI Name:	DASZAK, PETER	Project Title:	Understanding the Risk of Bat Coronavirus Emergence
Institution:	ECOHEALTH ALLIANCE, INC.		

5	2018	Active	0
Total			3000

Collaborator	Nam, Nguyen Huu	Involve Humans:	No
Institution/Site:	Hanoi Agricultural University	FWA	Established
Phone:	(b) (6)	Involve Animals:	Yes
Email:	(b) (6)	Animal	Established
Address:	Faculty of Animal and Veterinary Science Trauquy Hanoi Gialam		

Support Year	Fiscal Year	Research Activities Status at Site	Estimated Total Cost at
1	2014	Inactive	0
2	2015	Inactive	0
3	2016	Active	0
4	2017	Active	0
5	2018	Active	0
Total			0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-04

Application Status:	Awarded. Non-fellowships only	Foreign	Domestic with Foreign Component
PD/PI Name:	DASZAK, PETER	Project Title:	Understanding the Risk of Bat Coronavirus Emergence
Institution:	ECOHEALTH ALLIANCE, INC.		

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-03

Application Status: Awarded. Non-fellowships only Foreign Domestic with Foreign Component
 PD/PI Name: DASZAK, PETER Project Title: Understanding the Risk of Bat Coronavirus Emergence
 Institution: ECOHEALTH ALLIANCE, INC.

Clearance 212153

STATUS AND ACTION			
Action Date	Performed By	Status	Action Comments
4/10/17 10:00 PM	AUTO_APPROVAL	Approved	
3/27/17 10:44 AM	Officer, Jackie	Pending State Department Review	(b) (5)
3/25/17 12:23 PM	Bernabe, Gayle	Pending Agency Review	
3/2/17 3:35 PM	Stemmy, Erik	Initiated	

STATE DEPARTMENT CLEARANCE

Research

The aims of this research project are to examine the mechanism through which coronaviruses jump from animal hosts/reservoirs to humans (spillover events). To accomplish this work the PI and his team will conduct detailed surveillance for coronaviruses at eight sites throughout in Asia (China, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Thailand, and Vietnam). Sampling sites will include urban centers, rural areas, and live animal markets. Samples will be collected from animals from each of these sites, and will be analyzed to determine what coronaviruses are present, and whether the viruses are able to infect humans.

The investigators plan to collect samples from bats (900 samples total across all sites), rodents (900 samples total across all sites), and small carnivores such as palm civets and ferret badgers (500 samples total across all sites). Animals will be captured and lightly anesthetized if necessary. They will be swabbed (mouth/nose, urogenital tract, and rectum), and a small amount of blood will be collected. If available, feces and urine will also be collected. All wild animals will be released unharmed after sampling. Of animals that are collected from live markets, a maximum of two per species may be humanely euthanized for organ tissue sampling. All animal work will be performed by trained individuals in accordance with the American Veterinary Medical Association guidelines, and the project is overseen by veterinarians. This work has also been reviewed and approved by the investigator's Institutional Animal Care and Use Committee.

Contact Details:

	Contact	Email	Phone
IC Contact	Bernabe, Gayle	(b) (6)	(b) (6)
Agency Contact	Gupta, Ranjan		
Program Officer	Stemmy, Erik J.		
Grants Specialist	Greer, Jenny L		

FOREIGN BURMA
 Clearance Type: New

Support Year	Fiscal Year	Research Activities Status at Country	Estimated Total Cost at Country
1	2014	Inactive	0
2	2015	Inactive	0
3	2016	Active	3000

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-03

Application Status: Awarded. Non-fellowships only Foreign Domestic with Foreign Component
 PD/PI Name: DASZAK, PETER Project Title: Understanding the Risk of Bat Coronavirus Emergence
 Institution: ECOHEALTH ALLIANCE, INC.

4	2017	Active	0
5	2018	Active	0
Total			3000

Collaborator	Toe, Aung Than	Involve Humans:	No
Institution/Site:	San Pya Clinic	FWA	Established
Phone:	(b) (6)	Involve Animals:	Yes
Email:	(b) (6)	Animal	Established
Address:	20/256 Insein Road Yangon 11051		

Support Year	Fiscal Year	Research Activities Status at Site	Estimated Total Cost at
1	2014	Inactive	0
2	2015	Inactive	0
3	2016	Active	0
4	2017	Active	0
5	2018	Active	0
Total			0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-03

Application Status: Awarded. Non-fellowships only Foreign Domestic with Foreign Component
 PD/PI Name: DASZAK, PETER Project Title: Understanding the Risk of Bat Coronavirus Emergence
 Institution: ECOHEALTH ALLIANCE, INC.

Clearance 212148

STATUS AND ACTION			
Action Date	Performed By	Status	Action Comments
3/27/17 10:00 PM	AUTO_APPROVAL	Approved	
3/13/17 11:21 AM	Officer, Jackie	Pending State Department Review	
3/13/17 10:21 AM	Bernabe, Gayle	Pending Agency Review	
3/2/17 3:16 PM	Stemmy, Erik	Initiated	

STATE DEPARTMENT CLEARANCE

Research

The aims of this research project are to examine the mechanism through which coronaviruses jump from animal hosts/reservoirs to humans (spillover events). To accomplish this work the PI and his team will conduct detailed surveillance for coronaviruses at eight sites throughout in Asia (China, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Thailand, and Vietnam). Sampling sites will include urban centers, rural areas, and live animal markets. Samples will be collected from animals from each of these sites, and will be analyzed to determine what coronaviruses are present, and whether the viruses are able to infect humans.

The investigators plan to collect samples from bats (900 samples total across all sites), rodents (900 samples total across all sites), and small carnivores such as palm civets and ferret badgers (500 samples total across all sites). Animals will be captured and lightly anesthetized if necessary. They will be swabbed (mouth/nose, urogenital tract, and rectum), and a small amount of blood will be collected. If available, feces and urine will also be collected. All wild animals will be released unharmed after sampling. Of animals that are collected from live markets, a maximum of two per species may be humanely euthanized for organ tissue sampling. All animal work will be performed by trained individuals in accordance with the American Veterinary Medical Association guidelines, and the project is overseen by veterinarians. This work has also been reviewed and approved by the investigator's Institutional Animal Care and Use Committee.

Contact Details:

	Contact	Email	Phone
IC Contact	Bernabe, Gayle	(b) (6)	
Agency Contact	Chung, Tina		
Program Officer	Stemmy, Erik J.		
Grants Specialist	Greer, Jenny L		
FOREIGN	CAMBODIA		
Clearance Type:	New		

Support Year	Fiscal Year	Research Activities Status at Country	Estimated Total Cost at Country
1	2014	Inactive	0
2	2015	Inactive	0
3	2016	Active	3000
4	2017	Active	0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-03

Application Status: Awarded. Non-fellowships only Foreign Domestic with Foreign Component
 PD/PI Name: DASZAK, PETER Project Title: Understanding the Risk of Bat Coronavirus Emergence
 Institution: ECOHEALTH ALLIANCE, INC.

5	2018	Active	0
Total			3000

Collaborator	Duong, Veasna	Involve Humans:	No
Institution/Site:	Institut Pasteur du Cambodge	FWA	Established
Phone:	(b) (6)	Involve Animals:	Yes
Email:	(b) (6)	Animal	Established
Address:	No. 5 Monivong Boulevard P.O. Box 983 Phnom Penh		

Support Year	Fiscal Year	Research Activities Status at Site	Estimated Total Cost at
1	2014	Inactive	0
2	2015	Inactive	0
3	2016	Active	0
4	2017	Active	0
5	2018	Active	0
Total			0

Application Status:	Awarded. Non-fellowships only	Foreign	Domestic with Foreign Component
PD/PI Name:	DASZAK, PETER	Project Title:	Understanding the Risk of Bat Coronavirus Emergence
Institution:	ECOHEALTH ALLIANCE, INC.		

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STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-03

Application Status:	Awarded. Non-fellowships only	Foreign	Domestic with Foreign Component
PD/PI Name:	DASZAK, PETER	Project Title:	Understanding the Risk of Bat Coronavirus Emergence
Institution:	ECOHEALTH ALLIANCE, INC.		

			(b) (5)
2/21/14 4:18 PM	Chung, Tina	Returned by Agency - Need Additional Information	
2/21/14 3:06 PM	Bernabe, Gayle	Pending Agency Review	

STATE DEPARTMENT CLEARANCE

Research

The aims of this research project are to examine the mechanism through which coronaviruses jump from animal hosts/reservoirs to humans (spillover events). To accomplish this work the Principal Investigator (PI) and his team will conduct detailed surveillance for coronaviruses at several sites throughout China including urban centers, rural areas, and live animal markets. Samples from each of these sites will be analyzed to determine what coronaviruses are present, and whether the viruses are able to infect humans. Blood samples will be obtained and interviews will be conducted with people who are highly exposed to wildlife. The researchers will also look at the potential for viral evolution in the context of the live animal market to investigate the emergence potential of novel coronaviruses, and to describe the dynamics of viral transmission from animal to human. Beginning in year 2 of the project, the researchers will interview human subjects over the age of 18 in the study sites, and the PI estimates 2,460 participants to be recruited. Participation will include answering questions regarding exposure to animals as well as blood sample collection. Informed consent for participation will be obtained from all human subjects and confidentiality of subjects will be protected, in compliance with NIH and in-country guidelines under the assurance number provided. All human samples will be analyzed at the provincial Centers for Disease Control and Prevention in Guangzhou.

Description of Animal Work in this project. Surveillance will be conducted in rural and urban (markets) sites in Guangxi, Yunnan, Fujian, and Guangdong Provinces. Wildlife samples will be collected from bat a variety of species. A minimum of 30 individual samples from 30 different bat species from the following families: Rhinolophidae, Hipposideridae, Vespertilionidae, Molossidae, and Pteropodidae. In market areas the investigators will opportunistically sample

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-03

Application Status:	Awarded. Non-fellowships only	Foreign	Domestic with Foreign Component
PD/PI Name:	DASZAK, PETER	Project Title:	Understanding the Risk of Bat Coronavirus Emergence
Institution:	ECOHEALTH ALLIANCE, INC.		

available insectivorous and frugivorous bats, as well as other mammals if available. Samples will include fresh feces or rectal swabs, saliva or oral swab, and blood. Nearly all animals will be released after samples are collected, however a small number of bats will be euthanized to collect internal organ samples for analysis. All work will be approved and conducted under IACUC supervision. Analysis of all animal samples will be conducted at the Wuhan Institute of Virology.

This information will be used to describe the risk of spillover events at the human-animal interface and to create detailed computer models that describe these events. These models could inform public health decisions by providing a means to investigate the risk of spillover events and help us understand what factors allow an animal coronavirus to evolve and jump into human populations.

Contact Details:

	Contact	Email	Phone
IC Contact	Bernabe, Gayle		(b) (6)
Agency Contact	Chung, Tina		
Program Officer	Stemmy, Erik J.		
Grants Specialist	Pone, Laura A		
FOREIGN	CHINA		
Clearance Type:	New		

Support Year	Fiscal Year	Research Activities Status at Country	Estimated Total Cost at Country
1	2014	Active	227663
2	2015	Active	211699
3	2016	Active	213239
4	2017	Active	201422
5	2018	Active	191576
Total			1045599

Collaborator	Zhu, Guanjin	Involve Humans:	Yes
Institution/Site:	Guangdong Entomological Institute (ECNU)	FWA	Pending
Phone:	(b) (6)	Involve Animals:	Yes
Email:	(b) (6)	Animal	Pending
Address:	Room 1707, Building 622 3663 Zhongshanbei Rd Shanghai Putuo District 200026		

Support Year	Fiscal Year	Research Activities Status at Site	Estimated Total Cost at
1	2014	Active	0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-03

Application Status:	Awarded. Non-fellowships only	Foreign	Domestic with Foreign Component
PD/PI Name:	DASZAK, PETER	Project Title:	Understanding the Risk of Bat Coronavirus Emergence
Institution:	ECOHEALTH ALLIANCE, INC.		

2	2015	Active	0
3	2016	Active	0
4	2017	Active	0
5	2018	Active	0
Total			0

Collaborator	Shi, ZhengLi	Involve Humans:	Yes
Institution/Site:	Wuhan Institute of Virology	FWA	Pending
Phone:	(b) (6)	Involve Animals:	Yes
Email:	(b) (6)	Animal	Pending
Address:	Xiao Hong Shan, No. 44 Wuchang District Wuhan 430071		

Support Year	Fiscal Year	Research Activities Status at Site	Estimated Total Cost at
1	2014	Active	133595
2	2015	Active	139015
3	2016	Active	159122
4	2017	Active	159122
5	2018	Active	159122
Total			749976

Collaborator	Zhang, ShuYi	Involve Humans:	Yes
Institution/Site:	East China Normal University	FWA	Pending
Phone:	(b) (6)	Involve Animals:	Yes
Email:	(b) (6)	Animal	Pending
Address:	3663 Zhongshan Beilu Shanghai 200062		

Support Year	Fiscal Year	Research Activities Status at Site	Estimated Total Cost at
1	2014	Active	94068

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-03

Application Status:	Awarded. Non-fellowships only	Foreign	Domestic with Foreign Component
PD/PI Name:	DASZAK, PETER	Project Title:	Understanding the Risk of Bat Coronavirus Emergence
Institution:	ECOHEALTH ALLIANCE, INC.		

2	2015	Active	72684
3	2016	Active	54117
4	2017	Active	42300
5	2018	Active	32454
Total			295623

Collaborator	Ke, Changwen	Involve Humans:	Yes
Institution/Site:	Center for Disease Control and Prevention of Guangdong	FWA	Pending
Phone:	(b) (6)	Involve Animals:	Yes
Email:	(b) (6)	Animal	Pending
Address:	176 Xigang Xilu Guangzhou 5103000		

Support Year	Fiscal Year	Research Activities Status at Site	Estimated Total Cost at
1	2014	Active	0
2	2015	Active	0
3	2016	Active	0
4	2017	Active	0
5	2018	Active	0
Total			0

Collaborator	Zhang, Yun-Zhi	Involve Humans:	Yes
Institution/Site:	Yunnan Institute of Endemic Diseases Control and Prevention	FWA	Pending
Phone:	(b) (6)	Involve Animals:	Yes
Email:	(b) (6)	Animal	Pending
Address:	33 Wenhua Road Dali 650201		

Support Year	Fiscal Year	Research Activities Status at Site	Estimated Total Cost at
1	2014	Active	0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-03

Application Status:	Awarded. Non-fellowships only	Foreign	Domestic with Foreign Component
PD/PI Name:	DASZAK, PETER	Project Title:	Understanding the Risk of Bat Coronavirus Emergence
Institution:	ECOHEALTH ALLIANCE, INC.		

2	2015	Active	0
3	2016	Active	0
4	2017	Active	0
5	2018	Active	0
Total			0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-03

Application Status: Awarded. Non-fellowships only Foreign Domestic with Foreign Component
 PD/PI Name: DASZAK, PETER Project Title: Understanding the Risk of Bat Coronavirus Emergence
 Institution: ECOHEALTH ALLIANCE, INC.

Clearance 211200

STATUS AND ACTION			
Action Date	Performed By	Status	Action Comments
11/29/16 4:04 AM	Yao, Lingyun	Approved	
10/24/16 11:25 AM	Officer, Jackie	Pending State Department Review	
10/24/16 10:07 AM	Bernabe, Gayle	Pending Agency Review	
10/20/16 1:56 PM	Stemmy, Erik	Saved	
10/12/16 3:35 PM	Stemmy, Erik	Initiated	

STATE DEPARTMENT CLEARANCE

Research

The aims of this research project are to examine the mechanism through which coronaviruses jump from animal hosts/reservoirs to humans (spillover events). To accomplish this work the PI and his team will conduct detailed surveillance for coronaviruses at several sites throughout China including urban centers, rural areas, and live animal markets. Samples from each of these sites will be analyzed to determine what coronaviruses are present, and whether the viruses are able to infect humans. Blood samples will be obtained and interviews will be conducted with people who are highly exposed to wildlife. The researchers will also look at the potential for viral evolution in the context of the live animal market to investigate the emergence potential of novel coronaviruses, and to describe the dynamics of viral transmission from animal to human. The researchers will interview human subjects over the age of 18 in the study sites, and the PI estimates 2,460 participants to be recruited. Participation will include answering questions regarding exposure to animals as well as blood sample collection. Informed consent for participation will be obtained from all human subjects and confidentiality of subjects will be protected, in compliance with NIH and in-country guidelines under the assurance number provided. All human samples will be analyzed at the provincial Centers for Disease Control and Prevention in Guangzhou.

This information will be used to describe the risk of spillover events at the human-animal interface and to create detailed computer models that describe these events. These models could inform public health decisions by providing a means to investigate the risk of spillover events and help us understand what factors allow an animal coronavirus to evolve and jump into human populations.

Contact Details:

	Contact	Email	Phone
IC Contact	Bernabe, Gayle	(b) (6)	
Agency Contact	Chung, Tina		
Program Officer	Stemmy, Erik J.		
Grants Specialist	Greer, Jenny L.		
FOREIGN	CHINA		
Clearance Type:	New		

Support Year	Fiscal Year	Research Activities Status at Country	Estimated Total Cost at Country
1	2014	Active	227663
2	2015	Active	211699

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-03

Application Status:	Awarded. Non-fellowships only	Foreign	Domestic with Foreign Component
PD/PI Name:	DASZAK, PETER	Project Title:	Understanding the Risk of Bat Coronavirus Emergence
Institution:	ECOHEALTH ALLIANCE, INC.		

3	2016	Active	213239
4	2017	Active	201422
5	2018	Active	191576
Total			1045599

Collaborator	Li, Shiyue	Involve Humans:	Yes
Institution/Site:	School of Public Health, Wuhan University	FWA	Established
Phone:	(b) (6)	Involve Animals:	No
Email:	(b) (6)	Animal	Not Specified
Address:	115 Donghu Road Wuchang Wuhan Hubei 430071		

Support Year	Fiscal Year	Research Activities Status at Site	Estimated Total Cost at
1	2014	Inactive	0
2	2015	Inactive	0
3	2016	Active	0
4	2017	Active	0
5	2018	Active	0
Total			0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-03

Application Status: Awarded. Non-fellowships only Foreign Domestic with Foreign Component
 PD/PI Name: DASZAK, PETER Project Title: Understanding the Risk of Bat Coronavirus Emergence
 Institution: ECOHEALTH ALLIANCE, INC.

Clearance 212150

STATUS AND ACTION			
Action Date	Performed By	Status	Action Comments
3/27/17 10:00 PM	AUTO_APPROVAL	Approved	
3/13/17 11:22 AM	Officer, Jackie	Pending State Department Review	
3/13/17 10:17 AM	Bernabe, Gayle	Pending Agency Review	
3/2/17 3:23 PM	Stemmy, Erik	Initiated	

STATE DEPARTMENT CLEARANCE

Research

The aims of this research project are to examine the mechanism through which coronaviruses jump from animal hosts/reservoirs to humans (spillover events). To accomplish this work the PI and his team will conduct detailed surveillance for coronaviruses at eight sites throughout in Asia (China, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Thailand, and Vietnam). Sampling sites will include urban centers, rural areas, and live animal markets. Samples will be collected from animals from each of these sites, and will be analyzed to determine what coronaviruses are present, and whether the viruses are able to infect humans.

The investigators plan to collect samples from bats (900 samples total across all sites), rodents (900 samples total across all sites), and small carnivores such as palm civets and ferret badgers (500 samples total across all sites). Animals will be captured and lightly anesthetized if necessary. They will be swabbed (mouth/nose, urogenital tract, and rectum), and a small amount of blood will be collected. If available, feces and urine will also be collected. All wild animals will be released unharmed after sampling. Of animals that are collected from live markets, a maximum of two per species may be humanely euthanized for organ tissue sampling. All animal work will be performed by trained individuals in accordance with the American Veterinary Medical Association guidelines, and the project is overseen by veterinarians. This work has also been reviewed and approved by the investigator's Institutional Animal Care and Use Committee.

Contact Details:

	Contact	Email	Phone
IC Contact	Bernabe, Gayle	(b) (6)	
Agency Contact	Gupta, Ranjan		
Program Officer	Stemmy, Erik J.		
Grants Specialist	Greer, Jenny L		
FOREIGN	INDONESIA		
Clearance Type:	New		

Support Year	Fiscal Year	Research Activities Status at Country	Estimated Total Cost at Country
1	2014	Inactive	0
2	2015	Inactive	0
3	2016	Active	3000
4	2017	Active	0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-03

Application Status: Awarded. Non-fellowships only Foreign Domestic with Foreign Component
 PD/PI Name: DASZAK, PETER Project Title: Understanding the Risk of Bat Coronavirus Emergence
 Institution: ECOHEALTH ALLIANCE, INC.

5	2018	Active	0
Total			3000

Collaborator	Pamungkas, Joko	Involve Humans:	No
Institution/Site:	Primate Research Center at Bogor Agricultural University	FWA	Established
Phone:	(b) (6)	Involve Animals:	Yes
Email:	(b) (6)	Animal	Established
Address:	JalanLodayall/5 Bogor 16151		

Support Year	Fiscal Year	Research Activities Status at Site	Estimated Total Cost at
1	2014	Inactive	0
2	2015	Inactive	0
3	2016	Active	0
4	2017	Active	0
5	2018	Active	0
Total			0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-03

Application Status: Awarded. Non-fellowships only **Foreign** Domestic with Foreign Component
PD/PI Name: DASZAK, PETER **Project Title:** Understanding the Risk of Bat Coronavirus Emergence
Institution: ECOHEALTH ALLIANCE, INC.

Clearance 212151

STATUS AND ACTION			
Action Date	Performed By	Status	Action Comments
3/27/17 10:00 PM	AUTO_APPROVAL	Approved	
3/13/17 11:22 AM	Officer, Jackie	Pending State Department Review	
3/13/17 10:15 AM	Bernabe, Gayle	Pending Agency Review	
3/2/17 3:32 PM	Stemmy, Erik	Initiated	

STATE DEPARTMENT CLEARANCE

Research

The aims of this research project are to examine the mechanism through which coronaviruses jump from animal hosts/reservoirs to humans (spillover events). To accomplish this work the PI and his team will conduct detailed surveillance for coronaviruses at eight sites throughout in Asia (China, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Thailand, and Vietnam). Sampling sites will include urban centers, rural areas, and live animal markets. Samples will be collected from animals from each of these sites, and will be analyzed to determine what coronaviruses are present, and whether the viruses are able to infect humans.

The investigators plan to collect samples from bats (900 samples total across all sites), rodents (900 samples total across all sites), and small carnivores such as palm civets and ferret badgers (500 samples total across all sites). Animals will be captured and lightly anesthetized if necessary. They will be swabbed (mouth/nose, urogenital tract, and rectum), and a small amount of blood will be collected. If available, feces and urine will also be collected. All wild animals will be released unharmed after sampling. Of animals that are collected from live markets, a maximum of two per species may be humanely euthanized for organ tissue sampling. All animal work will be performed by trained individuals in accordance with the American Veterinary Medical Association guidelines, and the project is overseen by veterinarians. This work has also been reviewed and approved by the investigator's Institutional Animal Care and Use Committee.

Contact Details:

	Contact	Email	Phone
IC Contact	Bernabe, Gayle		(b) (6)
Agency Contact	Chung, Tina		
Program Officer	Stemmy, Erik J.		
Grants Specialist	Greer, Jenny L		
FOREIGN	LAOS		
Clearance Type:	New		

Support Year	Fiscal Year	Research Activities Status at Country	Estimated Total Cost at Country
1	2014	Inactive	0
2	2015	Inactive	0
3	2016	Active	3000
4	2017	Active	0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-03

Application Status:	Awarded. Non-fellowships only	Foreign	Domestic with Foreign Component
PD/PI Name:	DASZAK, PETER	Project Title:	Understanding the Risk of Bat Coronavirus Emergence
Institution:	ECOHEALTH ALLIANCE, INC.		

5	2018	Active	0
Total			3000

Collaborator	Theppangna, Walthana	Involve Humans:	No
Institution/Site:	National Animal Health Laboratory	FWA	Established
Phone:	(b) (6)	Involve Animals:	Yes
Email:	(b) (6)	Animal	Established
Address:	Department of Livestock and Fisheries Ministry of Agriculture and Forestry Vientiane		

Support Year	Fiscal Year	Research Activities Status at Site	Estimated Total Cost at
1	2014	Inactive	0
2	2015	Inactive	0
3	2016	Active	0
4	2017	Active	0
5	2018	Active	0
Total			0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-03

Application Status: Awarded. Non-fellowships only **Foreign** Domestic with Foreign Component
PD/PI Name: DASZAK, PETER **Project Title:** Understanding the Risk of Bat Coronavirus Emergence
Institution: ECOHEALTH ALLIANCE, INC.

Clearance 212152

STATUS AND ACTION			
Action Date	Performed By	Status	Action Comments
3/27/17 10:00 PM	AUTO_APPROVAL	Approved	
3/13/17 10:13 AM	Officer, Jackie	Pending State Department Review	
3/13/17 10:12 AM	Bernabe, Gayle	Pending Agency Review	
3/2/17 3:32 PM	Stemmy, Erik	Initiated	

STATE DEPARTMENT CLEARANCE

Research

The aims of this research project are to examine the mechanism through which coronaviruses jump from animal hosts/reservoirs to humans (spillover events). To accomplish this work the PI and his team will conduct detailed surveillance for coronaviruses at eight sites throughout in Asia (China, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Thailand, and Vietnam). Sampling sites will include urban centers, rural areas, and live animal markets. Samples will be collected from animals from each of these sites, and will be analyzed to determine what coronaviruses are present, and whether the viruses are able to infect humans.

The investigators plan to collect samples from bats (900 samples total across all sites), rodents (900 samples total across all sites), and small carnivores such as palm civets and ferret badgers (500 samples total across all sites). Animals will be captured and lightly anesthetized if necessary. They will be swabbed (mouth/nose, urogenital tract, and rectum), and a small amount of blood will be collected. If available, feces and urine will also be collected. All wild animals will be released unharmed after sampling. Of animals that are collected from live markets, a maximum of two per species may be humanely euthanized for organ tissue sampling. All animal work will be performed by trained individuals in accordance with the American Veterinary Medical Association guidelines, and the project is overseen by veterinarians. This work has also been reviewed and approved by the investigator's Institutional Animal Care and Use Committee.

Contact Details:

	Contact	Email	Phone
IC Contact	Bernabe, Gayle		(b) (6)
Agency Contact	Chung, Tina		
Program Officer	Stemmy, Erik J.		
Grants Specialist	Greer, Jenny L		
FOREIGN	MALAYSIA		
Clearance Type:	New		

Support Year	Fiscal Year	Research Activities Status at Country	Estimated Total Cost at Country
1	2014	Inactive	0
2	2015	Inactive	0
3	2016	Active	3000
4	2017	Active	0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-03

Application Status:	Awarded. Non-fellowships only	Foreign	Domestic with Foreign Component
PD/PI Name:	DASZAK, PETER	Project Title:	Understanding the Risk of Bat Coronavirus Emergence
Institution:	ECOHEALTH ALLIANCE, INC.		

5	2018	Active	0
Total			3000

Collaborator	Tom, Hughes	Involve Humans:	No
Institution/Site:	Conservation Medicine, Ltd	FWA	Established
Phone:	(b) (6)	Involve Animals:	Yes
Email:	(b) (6)	Animal	Established
Address:	Suite 4A, Level 4, Main Office Tower Financial Park Complex Bandar Labuan Federal Territory of Labuan		

Support Year	Fiscal Year	Research Activities Status at Site	Estimated Total Cost at
1	2014	Inactive	0
2	2015	Inactive	0
3	2016	Active	0
4	2017	Active	0
5	2018	Active	0
Total			0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-03

Application Status: Awarded. Non-fellowships only **Foreign** Domestic with Foreign Component
PD/PI Name: DASZAK, PETER **Project Title:** Understanding the Risk of Bat Coronavirus Emergence
Institution: ECOHEALTH ALLIANCE, INC.

Clearance 212154

STATUS AND ACTION			
Action Date	Performed By	Status	Action Comments
3/17/17 5:14 AM	Frater, Eric	Approved	(b) (5)
3/13/17 10:13 AM	Officer, Jackie	Pending State Department Review	
3/13/17 10:09 AM	Bernabe, Gayle	Pending Agency Review	
3/2/17 3:37 PM	Stemmy, Erik	Initiated	

STATE DEPARTMENT CLEARANCE

Research

The aims of this research project are to examine the mechanism through which coronaviruses jump from animal hosts/reservoirs to humans (spillover events). To accomplish this work the PI and his team will conduct detailed surveillance for coronaviruses at eight sites throughout in Asia (China, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Thailand, and Vietnam). Sampling sites will include urban centers, rural areas, and live animal markets. Samples will be collected from animals from each of these sites, and will be analyzed to determine what coronaviruses are present, and whether the viruses are able to infect humans.

The investigators plan to collect samples from bats (900 samples total across all sites), rodents (900 samples total across all sites), and small carnivores such as palm civets and ferret badgers (500 samples total across all sites). Animals will be captured and lightly anesthetized if necessary. They will be swabbed (mouth/nose, urogenital tract, and rectum), and a small amount of blood will be collected. If available, feces and urine will also be collected. All wild animals will be released unharmed after sampling. Of animals that are collected from live markets, a maximum of two per species may be humanely euthanized for organ tissue sampling. All animal work will be performed by trained individuals in accordance with the American Veterinary Medical Association guidelines, and the project is overseen by veterinarians. This work has also been reviewed and approved by the investigator's Institutional Animal Care and Use Committee.

Contact Details:

	Contact	Email	Phone
IC Contact	Bernabe, Gayle	(b) (6)	
Agency Contact	Gupta, Ranjan		
Program Officer	Stemmy, Erik J.		
Grants Specialist	Greer, Jenny L		
FOREIGN	THAILAND		
Clearance Type:	New		

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-03

Application Status:	Awarded. Non-fellowships only	Foreign	Domestic with Foreign Component
PD/PI Name:	DASZAK, PETER	Project Title:	Understanding the Risk of Bat Coronavirus Emergence
Institution:	ECOHEALTH ALLIANCE, INC.		

Support Year	Fiscal Year	Research Activities Status at Country	Estimated Total Cost at Country
1	2014	Inactive	0
2	2015	Inactive	0
3	2016	Active	3000
4	2017	Active	0
5	2018	Active	0
Total			3000

Collaborator	Wacharapluesadee, Supaporn	Involve Humans:	No
Institution/Site:	King Chulalongkorn Memorial Hospital	FWA	Established
Phone:	(b) (6)	Involve Animals:	Yes
Email:	(b) (6)	Animal	Established
Address:	Neuroscience Center for Research and Development Rama 4 Road Bangkok Patumwan 10330		

Support Year	Fiscal Year	Research Activities Status at Site	Estimated Total Cost at
1	2014	Inactive	0
2	2015	Inactive	0
3	2016	Active	0
4	2017	Active	0
5	2018	Active	0
Total			0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-03

Application Status: Awarded. Non-fellowships only **Foreign** Domestic with Foreign Component
PD/PI Name: DASZAK, PETER **Project Title:** Understanding the Risk of Bat Coronavirus Emergence
Institution: ECOHEALTH ALLIANCE, INC.

Clearance 212155

STATUS AND ACTION			
Action Date	Performed By	Status	Action Comments
3/27/17 10:00 PM	AUTO_APPROVAL	Approved	
3/13/17 10:13 AM	Officer, Jackie	Pending State Department Review	
3/13/17 10:05 AM	Bernabe, Gayle	Pending Agency Review	
3/2/17 3:38 PM	Stemmy, Erik	Initiated	

STATE DEPARTMENT CLEARANCE

Research

The aims of this research project are to examine the mechanism through which coronaviruses jump from animal hosts/reservoirs to humans (spillover events). To accomplish this work the PI and his team will conduct detailed surveillance for coronaviruses at eight sites throughout in Asia (China, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Thailand, and Vietnam). Sampling sites will include urban centers, rural areas, and live animal markets. Samples will be collected from animals from each of these sites, and will be analyzed to determine what coronaviruses are present, and whether the viruses are able to infect humans.

The investigators plan to collect samples from bats (900 samples total across all sites), rodents (900 samples total across all sites), and small carnivores such as palm civets and ferret badgers (500 samples total across all sites). Animals will be captured and lightly anesthetized if necessary. They will be swabbed (mouth/nose, urogenital tract, and rectum), and a small amount of blood will be collected. If available, feces and urine will also be collected. All wild animals will be released unharmed after sampling. Of animals that are collected from live markets, a maximum of two per species may be humanely euthanized for organ tissue sampling. All animal work will be performed by trained individuals in accordance with the American Veterinary Medical Association guidelines, and the project is overseen by veterinarians. This work has also been reviewed and approved by the investigator's Institutional Animal Care and Use Committee.

Contact Details:

	Contact	Email	Phone
IC Contact	Bernabe, Gayle	(b) (6)	
Agency Contact	Chung, Tina		
Program Officer	Stemmy, Erik J.		
Grants Specialist	Greer, Jenny L		

FOREIGN VIETNAM
Clearance Type: New

Support Year	Fiscal Year	Research Activities Status at Country	Estimated Total Cost at Country
1	2014	Inactive	0
2	2015	Inactive	0
3	2016	Active	3000
4	2017	Active	0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-03

Application Status:	Awarded. Non-fellowships only	Foreign	Domestic with Foreign Component
PD/PI Name:	DASZAK, PETER	Project Title:	Understanding the Risk of Bat Coronavirus Emergence
Institution:	ECOHEALTH ALLIANCE, INC.		

5	2018	Active	0
Total			3000

Collaborator	Nam, Nguyen Huu	Involve Humans:	No
Institution/Site:	Hanoi Agricultural University	FWA	Established
Phone:	(b) (6)	Involve Animals:	Yes
Email:	(b) (6)	Animal	Established
Address:	Faculty of Animal and Veterinary Science Trauquy Hanoi Gialam		

Support Year	Fiscal Year	Research Activities Status at Site	Estimated Total Cost at
1	2014	Inactive	0
2	2015	Inactive	0
3	2016	Active	0
4	2017	Active	0
5	2018	Active	0
Total			0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-03

Application Status:	Awarded. Non-fellowships only	Foreign	Domestic with Foreign Component
PD/PI Name:	DASZAK, PETER	Project Title:	Understanding the Risk of Bat Coronavirus Emergence
Institution:	ECOHEALTH ALLIANCE, INC.		

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-02

Application Status: Awarded. Non-fellowships only **Foreign** Domestic with Foreign Component
PD/PI Name: DASZAK, PETER **Project Title:** Understanding the Risk of Bat Coronavirus Emergence
Institution: ECOHEALTH ALLIANCE, INC.

Clearance 212153

STATUS AND ACTION			
Action Date	Performed By	Status	Action Comments
4/10/17 10:00 PM	AUTO_APPROVAL	Approved	
3/27/17 10:44 AM	Officer, Jackie	Pending State Department Review	
3/25/17 12:23 PM	Bernabe, Gayle	Pending Agency Review	(b) (5)
3/2/17 3:35 PM	Stemmy, Erik	Initiated	

STATE DEPARTMENT CLEARANCE

Research

The aims of this research project are to examine the mechanism through which coronaviruses jump from animal hosts/reservoirs to humans (spillover events). To accomplish this work the PI and his team will conduct detailed surveillance for coronaviruses at eight sites throughout in Asia (China, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Thailand, and Vietnam). Sampling sites will include urban centers, rural areas, and live animal markets. Samples will be collected from animals from each of these sites, and will be analyzed to determine what coronaviruses are present, and whether the viruses are able to infect humans.

The investigators plan to collect samples from bats (900 samples total across all sites), rodents (900 samples total across all sites), and small carnivores such as palm civets and ferret badgers (500 samples total across all sites). Animals will be captured and lightly anesthetized if necessary. They will be swabbed (mouth/nose, urogenital tract, and rectum), and a small amount of blood will be collected. If available, feces and urine will also be collected. All wild animals will be released unharmed after sampling. Of animals that are collected from live markets, a maximum of two per species may be humanely euthanized for organ tissue sampling. All animal work will be performed by trained individuals in accordance with the American Veterinary Medical Association guidelines, and the project is overseen by veterinarians. This work has also been reviewed and approved by the investigator's Institutional Animal Care and Use Committee.

Contact Details:

	Contact	Email	Phone
IC Contact	Bernabe, Gayle	(b) (6)	
Agency Contact	Gupta, Ranjan		
Program Officer	Stemmy, Erik J.		
Grants Specialist	Greer, Jenny L		

FOREIGN BURMA
Clearance Type: New

Support Year	Fiscal Year	Research Activities Status at Country	Estimated Total Cost at Country
1	2014	Inactive	0
2	2015	Inactive	0
3	2016	Active	3000

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-02

Application Status:	Awarded. Non-fellowships only	Foreign	Domestic with Foreign Component
PD/PI Name:	DASZAK, PETER	Project Title:	Understanding the Risk of Bat Coronavirus Emergence
Institution:	ECOHEALTH ALLIANCE, INC.		

4	2017	Active	0
5	2018	Active	0
Total			3000

Collaborator	Toe, Aung Than	Involve Humans:	No
Institution/Site:	San Pya Clinic	FWA	Established
Phone:	(b) (6)	Involve Animals:	Yes
Email:	(b) (6)	Animal	Established
Address:	20/256 Insein Road Yangon 11051		

Support Year	Fiscal Year	Research Activities Status at Site	Estimated Total Cost at
1	2014	Inactive	0
2	2015	Inactive	0
3	2016	Active	0
4	2017	Active	0
5	2018	Active	0
Total			0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-02

Application Status: Awarded. Non-fellowships only Foreign Domestic with Foreign Component
 PD/PI Name: DASZAK, PETER Project Title: Understanding the Risk of Bat Coronavirus Emergence
 Institution: ECOHEALTH ALLIANCE, INC.

Clearance 212148

STATUS AND ACTION			
Action Date	Performed By	Status	Action Comments
3/27/17 10:00 PM	AUTO_APPROVAL	Approved	
3/13/17 11:21 AM	Officer, Jackie	Pending State Department Review	
3/13/17 10:21 AM	Bernabe, Gayle	Pending Agency Review	
3/2/17 3:16 PM	Stemmy, Erik	Initiated	

STATE DEPARTMENT CLEARANCE

Research

The aims of this research project are to examine the mechanism through which coronaviruses jump from animal hosts/reservoirs to humans (spillover events). To accomplish this work the PI and his team will conduct detailed surveillance for coronaviruses at eight sites throughout in Asia (China, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Thailand, and Vietnam). Sampling sites will include urban centers, rural areas, and live animal markets. Samples will be collected from animals from each of these sites, and will be analyzed to determine what coronaviruses are present, and whether the viruses are able to infect humans.

The investigators plan to collect samples from bats (900 samples total across all sites), rodents (900 samples total across all sites), and small carnivores such as palm civets and ferret badgers (500 samples total across all sites). Animals will be captured and lightly anesthetized if necessary. They will be swabbed (mouth/nose, urogenital tract, and rectum), and a small amount of blood will be collected. If available, feces and urine will also be collected. All wild animals will be released unharmed after sampling. Of animals that are collected from live markets, a maximum of two per species may be humanely euthanized for organ tissue sampling. All animal work will be performed by trained individuals in accordance with the American Veterinary Medical Association guidelines, and the project is overseen by veterinarians. This work has also been reviewed and approved by the investigator's Institutional Animal Care and Use Committee.

Contact Details:

	Contact	Email	Phone
IC Contact	Bernabe, Gayle	(b) (6)	
Agency Contact	Chung, Tina		
Program Officer	Stemmy, Erik J.		
Grants Specialist	Greer, Jenny L		

FOREIGN CAMBODIA
 Clearance Type: New

Support Year	Fiscal Year	Research Activities Status at Country	Estimated Total Cost at Country
1	2014	Inactive	0
2	2015	Inactive	0
3	2016	Active	3000
4	2017	Active	0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-02

Application Status:	Awarded. Non-fellowships only	Foreign	Domestic with Foreign Component
PD/PI Name:	DASZAK, PETER	Project Title:	Understanding the Risk of Bat Coronavirus Emergence
Institution:	ECOHEALTH ALLIANCE, INC.		

5	2018	Active	0
Total			3000

Collaborator	Duong, Veasna	Involve Humans:	No
Institution/Site:	Institut Pasteur du Cambodge	FWA	Established
Phone:	(b) (6)	Involve Animals:	Yes
Email:	(b) (6)	Animal	Established
Address:	No. 5 Monivong Boulevard P.O. Box 983 Phnom Penh		

Support Year	Fiscal Year	Research Activities Status at Site	Estimated Total Cost at
1	2014	Inactive	0
2	2015	Inactive	0
3	2016	Active	0
4	2017	Active	0
5	2018	Active	0
Total			0

Application Status:	Awarded. Non-fellowships only	Foreign	Domestic with Foreign Component
PD/PI Name:	DASZAK, PETER	Project Title:	Understanding the Risk of Bat Coronavirus Emergence
Institution:	ECOHEALTH ALLIANCE, INC.		

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-02

Application Status:	Awarded. Non-fellowships only	Foreign	Domestic with Foreign Component
PD/PI Name:	DASZAK, PETER	Project Title:	Understanding the Risk of Bat Coronavirus Emergence
Institution:	ECOHEALTH ALLIANCE, INC.		

			(b) (5)
2/21/14 4:18 PM	Chung, Tina	Returned by Agency - Need Additional Information	
2/21/14 3:06 PM	Bemabe, Gayle	Pending Agency Review	

STATE DEPARTMENT CLEARANCE

Research

The aims of this research project are to examine the mechanism through which coronaviruses jump from animal hosts/reservoirs to humans (spillover events). To accomplish this work the Principal Investigator (PI) and his team will conduct detailed surveillance for coronaviruses at several sites throughout China including urban centers, rural areas, and live animal markets. Samples from each of these sites will be analyzed to determine what coronaviruses are present, and whether the viruses are able to infect humans. Blood samples will be obtained and interviews will be conducted with people who are highly exposed to wildlife. The researchers will also look at the potential for viral evolution in the context of the live animal market to investigate the emergence potential of novel coronaviruses, and to describe the dynamics of viral transmission from animal to human. Beginning in year 2 of the project, the researchers will interview human subjects over the age of 18 in the study sites, and the PI estimates 2,460 participants to be recruited. Participation will include answering questions regarding exposure to animals as well as blood sample collection. Informed consent for participation will be obtained from all human subjects and confidentiality of subjects will be protected, in compliance with NIH and in-country guidelines under the assurance number provided. All human samples will be analyzed at the provincial Centers for Disease Control and Prevention in Guangzhou.

Description of Animal Work in this project. Surveillance will be conducted in rural and urban (markets) sites in Guangxi, Yunnan, Fujian, and Guangdong Provinces. Wildlife samples will be collected from bat a variety of species. A minimum of 30 individual samples from 30 different bat species from the following families: Rhinolophidae, Hipposideridae, Vespertilionidae, Molossidae, and Pteropodidae. In market areas the investigators will opportunistically sample

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-02

Application Status:	Awarded. Non-fellowships only	Foreign	Domestic with Foreign Component
PD/PI Name:	DASZAK, PETER	Project Title:	Understanding the Risk of Bat Coronavirus Emergence
Institution:	ECOHEALTH ALLIANCE, INC.		

available insectivorous and frugivorous bats, as well as other mammals if available. Samples will include fresh feces or rectal swabs, saliva or oral swab, and blood. Nearly all animals will be released after samples are collected, however a small number of bats will be euthanized to collect internal organ samples for analysis. All work will be approved and conducted under IACUC supervision. Analysis of all animal samples will be conducted at the Wuhan Institute of Virology.

This information will be used to describe the risk of spillover events at the human-animal interface and to create detailed computer models that describe these events. These models could inform public health decisions by providing a means to investigate the risk of spillover events and help us understand what factors allow an animal coronavirus to evolve and jump into human populations.

Contact Details:

	Contact	Email	Phone
IC Contact	Bernabe, Gayle	(b) (6)	(b) (6)
Agency Contact	Chung, Tina		
Program Officer	Stemmy, Erik J.		
Grants Specialist	Pone, Laura A		
FOREIGN	CHINA		
Clearance Type:	New		

Support Year	Fiscal Year	Research Activities Status at Country	Estimated Total Cost at Country
1	2014	Active	227663
2	2015	Active	211699
3	2016	Active	213239
4	2017	Active	201422
5	2018	Active	191576
Total			1045599

Collaborator	Zhu, Guanjin	Involve Humans:	Yes
Institution/Site:	Guangdong Entomological Institute (ECNU)	FWA	Pending
Phone:	(b) (6)	Involve Animals:	Yes
Email:	(b) (6)	Animal	Pending
Address:	Room 1707, Building 622 3663 Zhongshanbei Rd Shanghai Putuo District 200026		

Support Year	Fiscal Year	Research Activities Status at Site	Estimated Total Cost at
1	2014	Active	0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-02

Application Status:	Awarded. Non-fellowships only	Foreign	Domestic with Foreign Component
PD/PI Name:	DASZAK, PETER	Project Title:	Understanding the Risk of Bat Coronavirus Emergence
Institution:	ECOHEALTH ALLIANCE, INC.		

2	2015	Active	0
3	2016	Active	0
4	2017	Active	0
5	2018	Active	0
Total			0

Collaborator	Shi, ZhengLi	Involve Humans:	Yes
Institution/Site:	Wuhan Institute of Virology	FWA	Pending
Phone:	(b) (6)	Involve Animals:	Yes
Email:	(b) (6)	Animal	Pending
Address:	Xiao Hong Shan, No. 44 Wuchang District Wuhan 430071		

Support Year	Fiscal Year	Research Activities Status at Site	Estimated Total Cost at
1	2014	Active	133595
2	2015	Active	139015
3	2016	Active	159122
4	2017	Active	159122
5	2018	Active	159122
Total			749976

Collaborator	Zhang, ShuYi	Involve Humans:	Yes
Institution/Site:	East China Normal University	FWA	Pending
Phone:	(b) (6)	Involve Animals:	Yes
Email:	(b) (6)	Animal	Pending
Address:	3663 Zhongshan Beilu Shanghai 200062		

Support Year	Fiscal Year	Research Activities Status at Site	Estimated Total Cost at
1	2014	Active	94068

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-02

Application Status:	Awarded. Non-fellowships only	Foreign	Domestic with Foreign Component
PD/PI Name:	DASZAK, PETER	Project Title:	Understanding the Risk of Bat Coronavirus Emergence
Institution:	ECOHEALTH ALLIANCE, INC.		

2	2015	Active	72684
3	2016	Active	54117
4	2017	Active	42300
5	2018	Active	32454
Total			295623

Collaborator	Ke, Changwen	Involve Humans:	Yes
Institution/Site:	Center for Disease Control and Prevention of Guangdong	FWA	Pending
Phone:	(b) (6)	Involve Animals:	Yes
Email:	(b) (6)	Animal	Pending
Address:	176 Xigang Xilu Guangzhou 5103000		

Support Year	Fiscal Year	Research Activities Status at Site	Estimated Total Cost at
1	2014	Active	0
2	2015	Active	0
3	2016	Active	0
4	2017	Active	0
5	2018	Active	0
Total			0

Collaborator	Zhang, Yun-Zhi	Involve Humans:	Yes
Institution/Site:	Yunnan Institute of Endemic Diseases Control and Prevention	FWA	Pending
Phone:	(b) (6)	Involve Animals:	Yes
Email:	(b) (6)	Animal	Pending
Address:	33 Wenhua Road Dali 650201		

Support Year	Fiscal Year	Research Activities Status at Site	Estimated Total Cost at
1	2014	Active	0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-02

Application Status:	Awarded. Non-fellowships only	Foreign	Domestic with Foreign Component
PD/PI Name:	DASZAK, PETER	Project Title:	Understanding the Risk of Bat Coronavirus Emergence
Institution:	ECOHEALTH ALLIANCE, INC.		

2	2015	Active	0
3	2016	Active	0
4	2017	Active	0
5	2018	Active	0
Total			0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-02

Application Status: Awarded. Non-fellowships only **Foreign** Domestic with Foreign Component
PD/PI Name: DASZAK, PETER **Project Title:** Understanding the Risk of Bat Coronavirus Emergence
Institution: ECOHEALTH ALLIANCE, INC.

Clearance 211200

STATUS AND ACTION			
Action Date	Performed By	Status	Action Comments
11/29/16 4:04 AM	Yao, Lingyun	Approved	
10/24/16 11:25 AM	Officer, Jackie	Pending State Department Review	
10/24/16 10:07 AM	Bernabe, Gayle	Pending Agency Review	
10/20/16 1:56 PM	Stemmy, Erik	Saved	
10/12/16 3:35 PM	Stemmy, Erik	Initiated	

STATE DEPARTMENT CLEARANCE

Research

The aims of this research project are to examine the mechanism through which coronaviruses jump from animal hosts/reservoirs to humans (spillover events). To accomplish this work the PI and his team will conduct detailed surveillance for coronaviruses at several sites throughout China including urban centers, rural areas, and live animal markets. Samples from each of these sites will be analyzed to determine what coronaviruses are present, and whether the viruses are able to infect humans. Blood samples will be obtained and interviews will be conducted with people who are highly exposed to wildlife. The researchers will also look at the potential for viral evolution in the context of the live animal market to investigate the emergence potential of novel coronaviruses, and to describe the dynamics of viral transmission from animal to human. The researchers will interview human subjects over the age of 18 in the study sites, and the PI estimates 2,460 participants to be recruited. Participation will include answering questions regarding exposure to animals as well as blood sample collection. Informed consent for participation will be obtained from all human subjects and confidentiality of subjects will be protected, in compliance with NIH and in-country guidelines under the assurance number provided. All human samples will be analyzed at the provincial Centers for Disease Control and Prevention in Guangzhou.

This information will be used to describe the risk of spillover events at the human-animal interface and to create detailed computer models that describe these events. These models could inform public health decisions by providing a means to investigate the risk of spillover events and help us understand what factors allow an animal coronavirus to evolve and jump into human populations.

Contact Details:

	Contact	Email	Phone
IC Contact	Bernabe, Gayle		(b) (6)
Agency Contact	Chung, Tina		
Program Officer	Stemmy, Erik J.		
Grants Specialist	Greer, Jenny L.		
FOREIGN	CHINA		
Clearance Type:	New		

Support Year	Fiscal Year	Research Activities Status at Country	Estimated Total Cost at Country
1	2014	Active	227663
2	2015	Active	211699

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-02

Application Status:	Awarded. Non-fellowships only	Foreign	Domestic with Foreign Component
PD/PI Name:	DASZAK, PETER	Project Title:	Understanding the Risk of Bat Coronavirus Emergence
Institution:	ECOHEALTH ALLIANCE, INC.		

3	2016	Active	213239
4	2017	Active	201422
5	2018	Active	191576
Total			1045599

Collaborator	Li, Shiyue	Involve Humans:	Yes
Institution/Site:	School of Public Health, Wuhan University	FWA	Established
Phone:	(b) (6)	Involve Animals:	No
Email:	(b) (6)	Animal	Not Specified
Address:	115 Donghu Road Wuchang Wuhan Hubei 430071		

Support Year	Fiscal Year	Research Activities Status at Site	Estimated Total Cost at
1	2014	Inactive	0
2	2015	Inactive	0
3	2016	Active	0
4	2017	Active	0
5	2018	Active	0
Total			0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-02

Application Status: Awarded. Non-fellowships only **Foreign** Domestic with Foreign Component
PD/PI Name: DASZAK, PETER **Project Title:** Understanding the Risk of Bat Coronavirus Emergence
Institution: ECOHEALTH ALLIANCE, INC.

Clearance 212150

STATUS AND ACTION			
Action Date	Performed By	Status	Action Comments
3/27/17 10:00 PM	AUTO_APPROVAL	Approved	
3/13/17 11:22 AM	Officer, Jackie	Pending State Department Review	
3/13/17 10:17 AM	Bernabe, Gayle	Pending Agency Review	
3/2/17 3:23 PM	Stemmy, Erik	Initiated	

STATE DEPARTMENT CLEARANCE

Research

The aims of this research project are to examine the mechanism through which coronaviruses jump from animal hosts/reservoirs to humans (spillover events). To accomplish this work the PI and his team will conduct detailed surveillance for coronaviruses at eight sites throughout in Asia (China, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Thailand, and Vietnam). Sampling sites will include urban centers, rural areas, and live animal markets. Samples will be collected from animals from each of these sites, and will be analyzed to determine what coronaviruses are present, and whether the viruses are able to infect humans.

The investigators plan to collect samples from bats (900 samples total across all sites), rodents (900 samples total across all sites), and small carnivores such as palm civets and ferret badgers (500 samples total across all sites). Animals will be captured and lightly anesthetized if necessary. They will be swabbed (mouth/nose, urogenital tract, and rectum), and a small amount of blood will be collected. If available, feces and urine will also be collected. All wild animals will be released unharmed after sampling. Of animals that are collected from live markets, a maximum of two per species may be humanely euthanized for organ tissue sampling. All animal work will be performed by trained individuals in accordance with the American Veterinary Medical Association guidelines, and the project is overseen by veterinarians. This work has also been reviewed and approved by the investigator's Institutional Animal Care and Use Committee.

Contact Details:

	Contact	Email	Phone
IC Contact	Bernabe, Gayle		(b) (6)
Agency Contact	Gupta, Ranjan		
Program Officer	Stemmy, Erik J.		
Grants Specialist	Greer, Jenny L		

FOREIGN INDONESIA
Clearance Type: New

Support Year	Fiscal Year	Research Activities Status at Country	Estimated Total Cost at Country
1	2014	Inactive	0
2	2015	Inactive	0
3	2016	Active	3000
4	2017	Active	0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-02

Application Status: Awarded. Non-fellowships only Foreign Domestic with Foreign Component
 PD/PI Name: DASZAK, PETER Project Title: Understanding the Risk of Bat Coronavirus Emergence
 Institution: ECOHEALTH ALLIANCE, INC.

5	2018	Active	0
Total			3000

Collaborator	Pamungkas, Joko	Involve Humans:	No
Institution/Site:	Primate Research Center at Bogor Agricultural University	FWA	Established
Phone:	(b) (6)	Involve Animals:	Yes
Email:	(b) (6)	Animal	Established
Address:	JalanLodayall/5 Bogor 16151		

Support Year	Fiscal Year	Research Activities Status at Site	Estimated Total Cost at
1	2014	Inactive	0
2	2015	Inactive	0
3	2016	Active	0
4	2017	Active	0
5	2018	Active	0
Total			0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-02

Application Status: Awarded. Non-fellowships only **Foreign** Domestic with Foreign Component
PD/PI Name: DASZAK, PETER **Project Title:** Understanding the Risk of Bat Coronavirus Emergence
Institution: ECOHEALTH ALLIANCE, INC.

Clearance 212151

STATUS AND ACTION			
Action Date	Performed By	Status	Action Comments
3/27/17 10:00 PM	AUTO_APPROVAL	Approved	
3/13/17 11:22 AM	Officer, Jackie	Pending State Department Review	
3/13/17 10:15 AM	Bernabe, Gayle	Pending Agency Review	
3/2/17 3:32 PM	Stemmy, Erik	Initiated	

STATE DEPARTMENT CLEARANCE

Research

The aims of this research project are to examine the mechanism through which coronaviruses jump from animal hosts/reservoirs to humans (spillover events). To accomplish this work the PI and his team will conduct detailed surveillance for coronaviruses at eight sites throughout in Asia (China, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Thailand, and Vietnam). Sampling sites will include urban centers, rural areas, and live animal markets. Samples will be collected from animals from each of these sites, and will be analyzed to determine what coronaviruses are present, and whether the viruses are able to infect humans.

The investigators plan to collect samples from bats (900 samples total across all sites), rodents (900 samples total across all sites), and small carnivores such as palm civets and ferret badgers (500 samples total across all sites). Animals will be captured and lightly anesthetized if necessary. They will be swabbed (mouth/nose, urogenital tract, and rectum), and a small amount of blood will be collected. If available, feces and urine will also be collected. All wild animals will be released unharmed after sampling. Of animals that are collected from live markets, a maximum of two per species may be humanely euthanized for organ tissue sampling. All animal work will be performed by trained individuals in accordance with the American Veterinary Medical Association guidelines, and the project is overseen by veterinarians. This work has also been reviewed and approved by the investigator's Institutional Animal Care and Use Committee.

Contact Details:

	Contact	Email	Phone
IC Contact	Bernabe, Gayle	(b) (6)	
Agency Contact	Chung, Tina		
Program Officer	Stemmy, Erik J.		
Grants Specialist	Greer, Jenny L		
FOREIGN	LAOS		
Clearance Type:	New		

Support Year	Fiscal Year	Research Activities Status at Country	Estimated Total Cost at Country
1	2014	Inactive	0
2	2015	Inactive	0
3	2016	Active	3000
4	2017	Active	0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-02

Application Status: Awarded. Non-fellowships only Foreign Domestic with Foreign Component
 PD/PI Name: DASZAK, PETER Project Title: Understanding the Risk of Bat Coronavirus Emergence
 Institution: ECOHEALTH ALLIANCE, INC.

5 2018 Active 0
 Total 3000

Collaborator	Theppangna, Walthana	Involve Humans:	No
Institution/Site:	National Animal Health Laboratory	FWA	Established
Phone:	(b) (6)	Involve Animals:	Yes
Email:	(b) (6)	Animal	Established
Address:	Department of Livestock and Fisheries Ministry of Agriculture and Forestry Vientiane		

Support Year	Fiscal Year	Research Activities Status at Site	Estimated Total Cost at
1	2014	Inactive	0
2	2015	Inactive	0
3	2016	Active	0
4	2017	Active	0
5	2018	Active	0
Total			0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-02

Application Status: Awarded. Non-fellowships only Foreign Domestic with Foreign Component
 PD/PI Name: DASZAK, PETER Project Title: Understanding the Risk of Bat Coronavirus Emergence
 Institution: ECOHEALTH ALLIANCE, INC.

Clearance 212152

STATUS AND ACTION			
Action Date	Performed By	Status	Action Comments
3/27/17 10:00 PM	AUTO_APPROVAL	Approved	
3/13/17 10:13 AM	Officer, Jackie	Pending State Department Review	
3/13/17 10:12 AM	Bernabe, Gayle	Pending Agency Review	
3/2/17 3:32 PM	Stemmy, Erik	Initiated	

STATE DEPARTMENT CLEARANCE

Research

The aims of this research project are to examine the mechanism through which coronaviruses jump from animal hosts/reservoirs to humans (spillover events). To accomplish this work the PI and his team will conduct detailed surveillance for coronaviruses at eight sites throughout in Asia (China, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Thailand, and Vietnam). Sampling sites will include urban centers, rural areas, and live animal markets. Samples will be collected from animals from each of these sites, and will be analyzed to determine what coronaviruses are present, and whether the viruses are able to infect humans.

The investigators plan to collect samples from bats (900 samples total across all sites), rodents (900 samples total across all sites), and small carnivores such as palm civets and ferret badgers (500 samples total across all sites). Animals will be captured and lightly anesthetized if necessary. They will be swabbed (mouth/nose, urogenital tract, and rectum), and a small amount of blood will be collected. If available, feces and urine will also be collected. All wild animals will be released unharmed after sampling. Of animals that are collected from live markets, a maximum of two per species may be humanely euthanized for organ tissue sampling. All animal work will be performed by trained individuals in accordance with the American Veterinary Medical Association guidelines, and the project is overseen by veterinarians. This work has also been reviewed and approved by the investigator's Institutional Animal Care and Use Committee.

Contact Details:

	Contact	Email	Phone
IC Contact	Bernabe, Gayle	(b) (6)	
Agency Contact	Chung, Tina		
Program Officer	Stemmy, Erik J.		
Grants Specialist	Greer, Jenny L		
FOREIGN	MALAYSIA		
Clearance Type:	New		

Support Year	Fiscal Year	Research Activities Status at Country	Estimated Total Cost at Country
1	2014	Inactive	0
2	2015	Inactive	0
3	2016	Active	3000
4	2017	Active	0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-02

Application Status:	Awarded. Non-fellowships only	Foreign	Domestic with Foreign Component
PD/PI Name:	DASZAK, PETER	Project Title:	Understanding the Risk of Bat Coronavirus Emergence
Institution:	ECOHEALTH ALLIANCE, INC.		

5	2018	Active	0
Total			3000

Collaborator	Tom, Hughes	Involve Humans:	No
Institution/Site:	Conservation Medicine, Ltd	FWA	Established
Phone:	(b) (6)	Involve Animals:	Yes
Email:	(b) (6)	Animal	Established
Address:	Suite 4A, Level 4, Main Office Tower Financial Park Complex Bandar Labuan Federal Territory of Labuan		

Support Year	Fiscal Year	Research Activities Status at Site	Estimated Total Cost at
1	2014	Inactive	0
2	2015	Inactive	0
3	2016	Active	0
4	2017	Active	0
5	2018	Active	0
Total			0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-02

Application Status: Awarded. Non-fellowships only **Foreign** Domestic with Foreign Component
PD/PI Name: DASZAK, PETER **Project Title:** Understanding the Risk of Bat Coronavirus Emergence
Institution: ECOHEALTH ALLIANCE, INC.

Clearance 212154

STATUS AND ACTION			
Action Date	Performed By	Status	Action Comments
3/17/17 5:14 AM	Frater, Eric	Approved	(b) (5)
3/13/17 10:13 AM	Officer, Jackie	Pending State Department Review	
3/13/17 10:09 AM	Bernabe, Gayle	Pending Agency Review	
3/2/17 3:37 PM	Stemmy, Erik	Initiated	

STATE DEPARTMENT CLEARANCE

Research

The aims of this research project are to examine the mechanism through which coronaviruses jump from animal hosts/reservoirs to humans (spillover events). To accomplish this work the PI and his team will conduct detailed surveillance for coronaviruses at eight sites throughout in Asia (China, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Thailand, and Vietnam). Sampling sites will include urban centers, rural areas, and live animal markets. Samples will be collected from animals from each of these sites, and will be analyzed to determine what coronaviruses are present, and whether the viruses are able to infect humans.

The investigators plan to collect samples from bats (900 samples total across all sites), rodents (900 samples total across all sites), and small carnivores such as palm civets and ferret badgers (500 samples total across all sites). Animals will be captured and lightly anesthetized if necessary. They will be swabbed (mouth/nose, urogenital tract, and rectum), and a small amount of blood will be collected. If available, feces and urine will also be collected. All wild animals will be released unharmed after sampling. Of animals that are collected from live markets, a maximum of two per species may be humanely euthanized for organ tissue sampling. All animal work will be performed by trained individuals in accordance with the American Veterinary Medical Association guidelines, and the project is overseen by veterinarians. This work has also been reviewed and approved by the investigator's Institutional Animal Care and Use Committee.

Contact Details:

	Contact	Email	Phone
IC Contact	Bernabe, Gayle	(b) (6)	
Agency Contact	Gupta, Ranjan		
Program Officer	Stemmy, Erik J.		
Grants Specialist	Greer, Jenny L.		
FOREIGN	THAILAND		
Clearance Type:	New		

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-02

Application Status: Awarded. Non-fellowships only

Foreign

Domestic with Foreign Component

PD/PI Name: DASZAK, PETER

Project Title:

Understanding the Risk of Bat
Coronavirus Emergence

Institution: ECOHEALTH ALLIANCE, INC.

Support Year	Fiscal Year	Research Activities Status at Country	Estimated Total Cost at Country
1	2014	Inactive	0
2	2015	Inactive	0
3	2016	Active	3000
4	2017	Active	0
5	2018	Active	0
Total			3000

Collaborator	Wacharapluesadee, Supaporn	Involve Humans:	No
Institution/Site:	King Chulalongkorn Memorial Hospital	FWA	Established
Phone:	(b) (6)	Involve Animals:	Yes
Email:	(b) (6)	Animal	Established
Address:	Neuroscience Center for Research and Development Rama 4 Road Bangkok Patumwan 10330		

Support Year	Fiscal Year	Research Activities Status at Site	Estimated Total Cost at
1	2014	Inactive	0
2	2015	Inactive	0
3	2016	Active	0
4	2017	Active	0
5	2018	Active	0
Total			0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-02

Application Status: Awarded. Non-fellowships only **Foreign** Domestic with Foreign Component
PD/PI Name: DASZAK, PETER **Project Title:** Understanding the Risk of Bat Coronavirus Emergence
Institution: ECOHEALTH ALLIANCE, INC.

Clearance 212155

STATUS AND ACTION			
Action Date	Performed By	Status	Action Comments
3/27/17 10:00 PM	AUTO_APPROVAL	Approved	
3/13/17 10:13 AM	Officer, Jackie	Pending State Department Review	
3/13/17 10:05 AM	Bernabe, Gayle	Pending Agency Review	
3/2/17 3:38 PM	Stemmy, Erik	Initiated	

STATE DEPARTMENT CLEARANCE

Research

The aims of this research project are to examine the mechanism through which coronaviruses jump from animal hosts/reservoirs to humans (spillover events). To accomplish this work the PI and his team will conduct detailed surveillance for coronaviruses at eight sites throughout in Asia (China, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Thailand, and Vietnam). Sampling sites will include urban centers, rural areas, and live animal markets. Samples will be collected from animals from each of these sites, and will be analyzed to determine what coronaviruses are present, and whether the viruses are able to infect humans.

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Contact Details:

	Contact	Email	Phone
IC Contact	Bernabe, Gayle	(b) (6)	
Agency Contact	Chung, Tina		
Program Officer	Stemmy, Erik J.		
Grants Specialist	Greer, Jenny L		

FOREIGN VIETNAM
Clearance Type: New

Support Year	Fiscal Year	Research Activities Status at Country	Estimated Total Cost at Country
1	2014	Inactive	0
2	2015	Inactive	0
3	2016	Active	3000
4	2017	Active	0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-02

Application Status:	Awarded. Non-fellowships only	Foreign	Domestic with Foreign Component
PD/PI Name:	DASZAK, PETER	Project Title:	Understanding the Risk of Bat Coronavirus Emergence
Institution:	ECOHEALTH ALLIANCE, INC.		

5	2018	Active	0
Total			3000

Collaborator	Nam, Nguyen Huu	Involve Humans:	No
Institution/Site:	Hanoi Agricultural University	FWA	Established
Phone:	(b) (6)	Involve Animals:	Yes
Email:	(b) (6)	Animal	Established
Address:	Faculty of Animal and Veterinary Science Trauquy Hanoi Gialam		

Support Year	Fiscal Year	Research Activities Status at Site	Estimated Total Cost at
1	2014	Inactive	0
2	2015	Inactive	0
3	2016	Active	0
4	2017	Active	0
5	2018	Active	0
Total			0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-02

Application Status:	Awarded. Non-fellowships only	Foreign	Domestic with Foreign Component
PD/PI Name:	DASZAK, PETER	Project Title:	Understanding the Risk of Bat Coronavirus Emergence
Institution:	ECOHEALTH ALLIANCE, INC.		

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-01

Application Status: Awarded. Non-fellowships only Foreign Domestic with Foreign Component
 PD/PI Name: DASZAK, PETER Project Title: Understanding the Risk of Bat Coronavirus Emergence
 Institution: ECOHEALTH ALLIANCE, INC.

Clearance 212153

STATUS AND ACTION			
Action Date	Performed By	Status	Action Comments
4/10/17 10:00 PM	AUTO_APPROVAL	Approved	
3/27/17 10:44 AM	Officer, Jackie	Pending State Department Review	
3/25/17 12:23 PM	Bernabe, Gayle	Pending Agency Review	(b) (5)
3/2/17 3:35 PM	Stemmy, Erik	Initiated	

STATE DEPARTMENT CLEARANCE

Research

The aims of this research project are to examine the mechanism through which coronaviruses jump from animal hosts/reservoirs to humans (spillover events). To accomplish this work the PI and his team will conduct detailed surveillance for coronaviruses at eight sites throughout in Asia (China, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Thailand, and Vietnam). Sampling sites will include urban centers, rural areas, and live animal markets. Samples will be collected from animals from each of these sites, and will be analyzed to determine what coronaviruses are present, and whether the viruses are able to infect humans.

The investigators plan to collect samples from bats (900 samples total across all sites), rodents (900 samples total across all sites), and small carnivores such as palm civets and ferret badgers (500 samples total across all sites). Animals will be captured and lightly anesthetized if necessary. They will be swabbed (mouth/nose, urogenital tract, and rectum), and a small amount of blood will be collected. If available, feces and urine will also be collected. All wild animals will be released unharmed after sampling. Of animals that are collected from live markets, a maximum of two per species may be humanely euthanized for organ tissue sampling. All animal work will be performed by trained individuals in accordance with the American Veterinary Medical Association guidelines, and the project is overseen by veterinarians. This work has also been reviewed and approved by the investigator's Institutional Animal Care and Use Committee.

Contact Details:

	Contact	Email	Phone
IC Contact	Bernabe, Gayle	(b) (6)	
Agency Contact	Gupta, Ranjan		
Program Officer	Stemmy, Erik J.		
Grants Specialist	Greer, Jenny L		

FOREIGN BURMA
 Clearance Type: New

Support Year	Fiscal Year	Research Activities Status at Country	Estimated Total Cost at Country
1	2014	Inactive	0
2	2015	Inactive	0
3	2016	Active	3000

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-01

Application Status:	Awarded. Non-fellowships only	Foreign	Domestic with Foreign Component
PD/PI Name:	DASZAK, PETER	Project Title:	Understanding the Risk of Bat Coronavirus Emergence
Institution:	ECOHEALTH ALLIANCE, INC.		

4	2017	Active	0
5	2018	Active	0
Total			3000

Collaborator	Toe, Aung Than	Involve Humans:	No
Institution/Site:	San Pya Clinic	FWA	Established
Phone:	(b) (6)	Involve Animals:	Yes
Email:	(b) (6)	Animal	Established
Address:	20/256 Insein Road Yangon 11051		

Support Year	Fiscal Year	Research Activities Status at Site	Estimated Total Cost at
1	2014	Inactive	0
2	2015	Inactive	0
3	2016	Active	0
4	2017	Active	0
5	2018	Active	0
Total			0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-01

Application Status: Awarded. Non-fellowships only **Foreign** Domestic with Foreign Component
PD/PI Name: DASZAK, PETER **Project Title:** Understanding the Risk of Bat Coronavirus Emergence
Institution: ECOHEALTH ALLIANCE, INC.

Clearance 212148

STATUS AND ACTION			
Action Date	Performed By	Status	Action Comments
3/27/17 10:00 PM	AUTO_APPROVAL	Approved	
3/13/17 11:21 AM	Officer, Jackie	Pending State Department Review	
3/13/17 10:21 AM	Bernabe, Gayle	Pending Agency Review	
3/2/17 3:16 PM	Stemmy, Erik	Initiated	

STATE DEPARTMENT CLEARANCE

Research

The aims of this research project are to examine the mechanism through which coronaviruses jump from animal hosts/reservoirs to humans (spillover events). To accomplish this work the PI and his team will conduct detailed surveillance for coronaviruses at eight sites throughout in Asia (China, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Thailand, and Vietnam). Sampling sites will include urban centers, rural areas, and live animal markets. Samples will be collected from animals from each of these sites, and will be analyzed to determine what coronaviruses are present, and whether the viruses are able to infect humans.

The investigators plan to collect samples from bats (900 samples total across all sites), rodents (900 samples total across all sites), and small carnivores such as palm civets and ferret badgers (500 samples total across all sites). Animals will be captured and lightly anesthetized if necessary. They will be swabbed (mouth/nose, urogenital tract, and rectum), and a small amount of blood will be collected. If available, feces and urine will also be collected. All wild animals will be released unharmed after sampling. Of animals that are collected from live markets, a maximum of two per species may be humanely euthanized for organ tissue sampling. All animal work will be performed by trained individuals in accordance with the American Veterinary Medical Association guidelines, and the project is overseen by veterinarians. This work has also been reviewed and approved by the investigator's Institutional Animal Care and Use Committee.

Contact Details:

	Contact	Email	Phone
IC Contact	Bernabe, Gayle	(b) (6)	
Agency Contact	Chung, Tina		
Program Officer	Stemmy, Erik J.		
Grants Specialist	Greer, Jenny L		

FOREIGN CAMBODIA
Clearance Type: New

Support Year	Fiscal Year	Research Activities Status at Country	Estimated Total Cost at Country
1	2014	Inactive	0
2	2015	Inactive	0
3	2016	Active	3000
4	2017	Active	0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-01

Application Status: Awarded. Non-fellowships only Foreign Domestic with Foreign Component
 PD/PI Name: DASZAK, PETER Project Title: Understanding the Risk of Bat
 Institution: ECOHEALTH ALLIANCE, INC. Coronavirus Emergence

5 2018 Active 0
 Total 3000

Collaborator	Duong, Veasna	Involve Humans:	No
Institution/Site:	Institut Pasteur du Cambodge	FWA	Established
Phone:	(b) (6)	Involve Animals:	Yes
Email:	(b) (6)	Animal	Established
Address:	No. 5 Monivong Boulevard P.O. Box 983 Phnom Penh		

Support Year	Fiscal Year	Research Activities Status at Site	Estimated Total Cost at
1	2014	Inactive	0
2	2015	Inactive	0
3	2016	Active	0
4	2017	Active	0
5	2018	Active	0
Total			0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-01

Application Status:	Awarded. Non-fellowships only	Foreign	Domestic with Foreign Component
PD/PI Name:	DASZAK, PETER	Project Title:	Understanding the Risk of Bat Coronavirus Emergence
Institution:	ECOHEALTH ALLIANCE, INC.		

Clearance 202191			
STATUS AND ACTION			
Action Date	Performed By	Status	Action Comments
3/11/14 9:34 PM	Wainscott, Brian	Approved	(b) (5)
2/25/14 1:05 PM	Chung, Tina	Pending State Department Review	
2/24/14 10:54 AM	Bemabe, Gayle	Pending Agency Review	
2/24/14 7:19 AM	Stemmy, Erik	Initiated	

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-01

Application Status:	Awarded. Non-fellowships only	Foreign	Domestic with Foreign Component
PD/PI Name:	DASZAK, PETER	Project Title:	Understanding the Risk of Bat Coronavirus Emergence
Institution:	ECOHEALTH ALLIANCE, INC.		

			(b) (5)
2/21/14 4:18 PM	Chung, Tina	Returned by Agency - Need Additional Information	
2/21/14 3:06 PM	Bemabe, Gayle	Pending Agency Review	

STATE DEPARTMENT CLEARANCE

Research

The aims of this research project are to examine the mechanism through which coronaviruses jump from animal hosts/reservoirs to humans (spillover events). To accomplish this work the Principal Investigator (PI) and his team will conduct detailed surveillance for coronaviruses at several sites throughout China including urban centers, rural areas, and live animal markets. Samples from each of these sites will be analyzed to determine what coronaviruses are present, and whether the viruses are able to infect humans. Blood samples will be obtained and interviews will be conducted with people who are highly exposed to wildlife. The researchers will also look at the potential for viral evolution in the context of the live animal market to investigate the emergence potential of novel coronaviruses, and to describe the dynamics of viral transmission from animal to human. Beginning in year 2 of the project, the researchers will interview human subjects over the age of 18 in the study sites, and the PI estimates 2,460 participants to be recruited. Participation will include answering questions regarding exposure to animals as well as blood sample collection. Informed consent for participation will be obtained from all human subjects and confidentiality of subjects will be protected, in compliance with NIH and in-country guidelines under the assurance number provided. All human samples will be analyzed at the provincial Centers for Disease Control and Prevention in Guangzhou.

Description of Animal Work in this project. Surveillance will be conducted in rural and urban (markets) sites in Guangxi, Yunnan, Fujian, and Guangdong Provinces. Wildlife samples will be collected from bat a variety of species. A minimum of 30 individual samples from 30 different bat species from the following families: Rhinolophidae, Hipposideridae, Vespertilionidae, Molossidae, and Pteropodidae. In market areas the investigators will opportunistically sample

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-01

Application Status: Awarded. Non-fellowships only **Foreign** Domestic with Foreign Component
PD/PI Name: DASZAK, PETER **Project Title:** Understanding the Risk of Bat Coronavirus Emergence
Institution: ECOHEALTH ALLIANCE, INC.

available insectivorous and frugivorous bats, as well as other mammals if available. Samples will include fresh feces or rectal swabs, saliva or oral swab, and blood. Nearly all animals will be released after samples are collected, however a small number of bats will be euthanized to collect internal organ samples for analysis. All work will be approved and conducted under IACUC supervision. Analysis of all animal samples will be conducted at the Wuhan Institute of Virology.

This information will be used to describe the risk of spillover events at the human-animal interface and to create detailed computer models that describe these events. These models could inform public health decisions by providing a means to investigate the risk of spillover events and help us understand what factors allow an animal coronavirus to evolve and jump into human populations.

Contact Details:

	Contact	Email	Phone
IC Contact	Bernabe, Gayle		(b) (6)
Agency Contact	Chung, Tina		
Program Officer	Stemmy, Erik J.		
Grants Specialist	Pone, Laura A		
FOREIGN	CHINA		
Clearance Type:	New		

Support Year	Fiscal Year	Research Activities Status at Country	Estimated Total Cost at Country
1	2014	Active	227663
2	2015	Active	211699
3	2016	Active	213239
4	2017	Active	201422
5	2018	Active	191576
Total			1045599

Collaborator	Zhu, Guanjin	Involve Humans:	Yes
Institution/Site:	Guangdong Entomological Institute (ECNU)	FWA	Pending
Phone:	(b) (6)	Involve Animals:	Yes
Email:	(b) (6)	Animal	Pending
Address:	Room 1707, Building 622 3663 Zhongshanbei Rd Shanghai Putuo District 200026		

Support Year	Fiscal Year	Research Activities Status at Site	Estimated Total Cost at
1	2014	Active	0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-01

Application Status:	Awarded. Non-fellowships only	Foreign	Domestic with Foreign Component
PD/PI Name:	DASZAK, PETER	Project Title:	Understanding the Risk of Bat Coronavirus Emergence
Institution:	ECOHEALTH ALLIANCE, INC.		

2	2015	Active	0
3	2016	Active	0
4	2017	Active	0
5	2018	Active	0
Total			0

Collaborator	Shi, ZhengLi	Involve Humans:	Yes
Institution/Site:	Wuhan Institute of Virology	FWA	Pending
Phone:	(b) (6)	Involve Animals:	Yes
Email:	(b) (6)	Animal	Pending
Address:	Xiao Hong Shan, No. 44 Wuchang District Wuhan 430071		

Support Year	Fiscal Year	Research Activities Status at Site	Estimated Total Cost at
1	2014	Active	133595
2	2015	Active	139015
3	2016	Active	159122
4	2017	Active	159122
5	2018	Active	159122
Total			749976

Collaborator	Zhang, ShuYi	Involve Humans:	Yes
Institution/Site:	East China Normal University	FWA	Pending
Phone:	(b) (6)	Involve Animals:	Yes
Email:	(b) (6)	Animal	Pending
Address:	3663 Zhongshan Beilu Shanghai 200062		

Support Year	Fiscal Year	Research Activities Status at Site	Estimated Total Cost at
1	2014	Active	94068

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-01

Application Status:	Awarded. Non-fellowships only	Foreign	Domestic with Foreign Component
PD/PI Name:	DASZAK, PETER	Project Title:	Understanding the Risk of Bat Coronavirus Emergence
Institution:	ECOHEALTH ALLIANCE, INC.		

2	2015	Active	72684
3	2016	Active	54117
4	2017	Active	42300
5	2018	Active	32454
Total			295623

Collaborator	Ke, Changwen	Involve Humans:	Yes
Institution/Site:	Center for Disease Control and Prevention of Guangdong	FWA	Pending
Phone:	(b) (6)	Involve Animals:	Yes
Email:	(b) (6)	Animal	Pending
Address:	176 Xigang Xilu Guangzhou 5103000		

Support Year	Fiscal Year	Research Activities Status at Site	Estimated Total Cost at
1	2014	Active	0
2	2015	Active	0
3	2016	Active	0
4	2017	Active	0
5	2018	Active	0
Total			0

Collaborator	Zhang, Yun-Zhi	Involve Humans:	Yes
Institution/Site:	Yunnan Institute of Endemic Diseases Control and Prevention	FWA	Pending
Phone:	(b) (6)	Involve Animals:	Yes
Email:	(b) (6)	Animal	Pending
Address:	33 Wenhua Road Dali 650201		

Support Year	Fiscal Year	Research Activities Status at Site	Estimated Total Cost at
1	2014	Active	0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-01

Application Status:	Awarded. Non-fellowships only	Foreign	Domestic with Foreign Component
PD/PI Name:	DASZAK, PETER	Project Title:	Understanding the Risk of Bat Coronavirus Emergence
Institution:	ECOHEALTH ALLIANCE, INC.		

2	2015	Active	0
3	2016	Active	0
4	2017	Active	0
5	2018	Active	0
Total			0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-01

Application Status: Awarded. Non-fellowships only **Foreign** Domestic with Foreign Component
PD/PI Name: DASZAK, PETER **Project Title:** Understanding the Risk of Bat Coronavirus Emergence
Institution: ECOHEALTH ALLIANCE, INC.

Clearance 211200

STATUS AND ACTION			
Action Date	Performed By	Status	Action Comments
11/29/16 4:04 AM	Yao, Lingyun	Approved	
10/24/16 11:25 AM	Officer, Jackie	Pending State Department Review	
10/24/16 10:07 AM	Bernabe, Gayle	Pending Agency Review	
10/20/16 1:56 PM	Stemmy, Erik	Saved	
10/12/16 3:35 PM	Stemmy, Erik	Initiated	

STATE DEPARTMENT CLEARANCE

Research

The aims of this research project are to examine the mechanism through which coronaviruses jump from animal hosts/reservoirs to humans (spillover events). To accomplish this work the PI and his team will conduct detailed surveillance for coronaviruses at several sites throughout China including urban centers, rural areas, and live animal markets. Samples from each of these sites will be analyzed to determine what coronaviruses are present, and whether the viruses are able to infect humans. Blood samples will be obtained and interviews will be conducted with people who are highly exposed to wildlife. The researchers will also look at the potential for viral evolution in the context of the live animal market to investigate the emergence potential of novel coronaviruses, and to describe the dynamics of viral transmission from animal to human. The researchers will interview human subjects over the age of 18 in the study sites, and the PI estimates 2,460 participants to be recruited. Participation will include answering questions regarding exposure to animals as well as blood sample collection. Informed consent for participation will be obtained from all human subjects and confidentiality of subjects will be protected, in compliance with NIH and in-country guidelines under the assurance number provided. All human samples will be analyzed at the provincial Centers for Disease Control and Prevention in Guangzhou.

This information will be used to describe the risk of spillover events at the human-animal interface and to create detailed computer models that describe these events. These models could inform public health decisions by providing a means to investigate the risk of spillover events and help us understand what factors allow an animal coronavirus to evolve and jump into human populations.

Contact Details:

	Contact	Email	Phone
IC Contact	Bernabe, Gayle		(b) (6)
Agency Contact	Chung, Tina		
Program Officer	Stemmy, Erik J.		
Grants Specialist	Greer, Jenny L.		
FOREIGN	CHINA		
Clearance Type:	New		

Support Year	Fiscal Year	Research Activities Status at Country	Estimated Total Cost at Country
1	2014	Active	227663
2	2015	Active	211699

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-01

Application Status:	Awarded. Non-fellowships only	Foreign	Domestic with Foreign Component
PD/PI Name:	DASZAK, PETER	Project Title:	Understanding the Risk of Bat Coronavirus Emergence
Institution:	ECOHEALTH ALLIANCE, INC.		

3	2016	Active	213239
4	2017	Active	201422
5	2018	Active	191576
Total			1045599

Collaborator	Li, Shiyue	Involve Humans:	Yes
Institution/Site:	School of Public Health, Wuhan University	FWA	Established
Phone:	(b) (6)	Involve Animals:	No
Email:	(b) (6)	Animal	Not Specified
Address:	115 Donghu Road Wuchang Wuhan Hubei 430071		

Support Year	Fiscal Year	Research Activities Status at Site	Estimated Total Cost at
1	2014	Inactive	0
2	2015	Inactive	0
3	2016	Active	0
4	2017	Active	0
5	2018	Active	0
Total			0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-01

Application Status: Awarded. Non-fellowships only **Foreign** Domestic with Foreign Component
PD/PI Name: DASZAK, PETER **Project Title:** Understanding the Risk of Bat Coronavirus Emergence
Institution: ECOHEALTH ALLIANCE, INC.

Clearance 212150

STATUS AND ACTION			
Action Date	Performed By	Status	Action Comments
3/27/17 10:00 PM	AUTO_APPROVAL	Approved	
3/13/17 11:22 AM	Officer, Jackie	Pending State Department Review	
3/13/17 10:17 AM	Bernabe, Gayle	Pending Agency Review	
3/2/17 3:23 PM	Stemmy, Erik	Initiated	

STATE DEPARTMENT CLEARANCE

Research

The aims of this research project are to examine the mechanism through which coronaviruses jump from animal hosts/reservoirs to humans (spillover events). To accomplish this work the PI and his team will conduct detailed surveillance for coronaviruses at eight sites throughout in Asia (China, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Thailand, and Vietnam). Sampling sites will include urban centers, rural areas, and live animal markets. Samples will be collected from animals from each of these sites, and will be analyzed to determine what coronaviruses are present, and whether the viruses are able to infect humans.

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Contact Details:

	Contact	Email	Phone
IC Contact	Bernabe, Gayle		(b) (6)
Agency Contact	Gupta, Ranjan		
Program Officer	Stemmy, Erik J.		
Grants Specialist	Greer, Jenny L		

FOREIGN INDONESIA
Clearance Type: New

Support Year	Fiscal Year	Research Activities Status at Country	Estimated Total Cost at Country
1	2014	Inactive	0
2	2015	Inactive	0
3	2016	Active	3000
4	2017	Active	0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-01

Application Status: Awarded. Non-fellowships only Foreign Domestic with Foreign Component
 PD/PI Name: DASZAK, PETER Project Title: Understanding the Risk of Bat Coronavirus Emergence
 Institution: ECOHEALTH ALLIANCE, INC.

5	2018	Active	0
Total			3000

Collaborator	Pamungkas, Joko	Involve Humans:	No
Institution/Site:	Primate Research Center at Bogor Agricultural University	FWA	Established
Phone:	(b) (6)	Involve Animals:	Yes
Email:	(b) (6)	Animal	Established
Address:	JalanLodayall/5 Bogor 16151		

Support Year	Fiscal Year	Research Activities Status at Site	Estimated Total Cost at
1	2014	Inactive	0
2	2015	Inactive	0
3	2016	Active	0
4	2017	Active	0
5	2018	Active	0
Total			0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-01

Application Status: Awarded. Non-fellowships only **Foreign** Domestic with Foreign Component
PD/PI Name: DASZAK, PETER **Project Title:** Understanding the Risk of Bat Coronavirus Emergence
Institution: ECOHEALTH ALLIANCE, INC.

Clearance 212151

STATUS AND ACTION			
Action Date	Performed By	Status	Action Comments
3/27/17 10:00 PM	AUTO_APPROVAL	Approved	
3/13/17 11:22 AM	Officer, Jackie	Pending State Department Review	
3/13/17 10:15 AM	Bernabe, Gayle	Pending Agency Review	
3/2/17 3:32 PM	Stemmy, Erik	Initiated	

STATE DEPARTMENT CLEARANCE

Research

The aims of this research project are to examine the mechanism through which coronaviruses jump from animal hosts/reservoirs to humans (spillover events). To accomplish this work the PI and his team will conduct detailed surveillance for coronaviruses at eight sites throughout in Asia (China, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Thailand, and Vietnam). Sampling sites will include urban centers, rural areas, and live animal markets. Samples will be collected from animals from each of these sites, and will be analyzed to determine what coronaviruses are present, and whether the viruses are able to infect humans.

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Contact Details:

	Contact	Email	Phone
IC Contact	Bernabe, Gayle		(b) (6)
Agency Contact	Chung, Tina		
Program Officer	Stemmy, Erik J.		
Grants Specialist	Greer, Jenny L		

FOREIGN LAOS
Clearance Type: New

Support Year	Fiscal Year	Research Activities Status at Country	Estimated Total Cost at Country
1	2014	Inactive	0
2	2015	Inactive	0
3	2016	Active	3000
4	2017	Active	0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-01

Application Status:	Awarded. Non-fellowships only	Foreign	Domestic with Foreign Component
PD/PI Name:	DASZAK, PETER	Project Title:	Understanding the Risk of Bat Coronavirus Emergence
Institution:	ECOHEALTH ALLIANCE, INC.		

5	2018	Active	0
Total			3000

Collaborator	Theppangna, Walthana	Involve Humans:	No
Institution/Site:	National Animal Health Laboratory	FWA	Established
Phone:	(b) (6)	Involve Animals:	Yes
Email:	(b) (6)	Animal	Established
Address:	Department of Livestock and Fisheries Ministry of Agriculture and Forestry Vientiane		

Support Year	Fiscal Year	Research Activities Status at Site	Estimated Total Cost at
1	2014	Inactive	0
2	2015	Inactive	0
3	2016	Active	0
4	2017	Active	0
5	2018	Active	0
Total			0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-01

Application Status: Awarded. Non-fellowships only **Foreign** Domestic with Foreign Component
PD/PI Name: DASZAK, PETER **Project Title:** Understanding the Risk of Bat Coronavirus Emergence
Institution: ECOHEALTH ALLIANCE, INC.

Clearance 212152

STATUS AND ACTION			
Action Date	Performed By	Status	Action Comments
3/27/17 10:00 PM	AUTO_APPROVAL	Approved	
3/13/17 10:13 AM	Officer, Jackie	Pending State Department Review	
3/13/17 10:12 AM	Bernabe, Gayle	Pending Agency Review	
3/2/17 3:32 PM	Stemmy, Erik	Initiated	

STATE DEPARTMENT CLEARANCE

Research

The aims of this research project are to examine the mechanism through which coronaviruses jump from animal hosts/reservoirs to humans (spillover events). To accomplish this work the PI and his team will conduct detailed surveillance for coronaviruses at eight sites throughout in Asia (China, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Thailand, and Vietnam). Sampling sites will include urban centers, rural areas, and live animal markets. Samples will be collected from animals from each of these sites, and will be analyzed to determine what coronaviruses are present, and whether the viruses are able to infect humans.

The investigators plan to collect samples from bats (900 samples total across all sites), rodents (900 samples total across all sites), and small carnivores such as palm civets and ferret badgers (500 samples total across all sites). Animals will be captured and lightly anesthetized if necessary. They will be swabbed (mouth/nose, urogenital tract, and rectum), and a small amount of blood will be collected. If available, feces and urine will also be collected. All wild animals will be released unharmed after sampling. Of animals that are collected from live markets, a maximum of two per species may be humanely euthanized for organ tissue sampling. All animal work will be performed by trained individuals in accordance with the American Veterinary Medical Association guidelines, and the project is overseen by veterinarians. This work has also been reviewed and approved by the investigator's Institutional Animal Care and Use Committee.

Contact Details:

	Contact	Email	Phone
IC Contact	Bernabe, Gayle		(b) (6)
Agency Contact	Chung, Tina		
Program Officer	Stemmy, Erik J.		
Grants Specialist	Greer, Jenny L		

FOREIGN MALAYSIA
Clearance Type: New

Support Year	Fiscal Year	Research Activities Status at Country	Estimated Total Cost at Country
1	2014	Inactive	0
2	2015	Inactive	0
3	2016	Active	3000
4	2017	Active	0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-01

Application Status:	Awarded. Non-fellowships only	Foreign	Domestic with Foreign Component
PD/PI Name:	DASZAK, PETER	Project Title:	Understanding the Risk of Bat Coronavirus Emergence
Institution:	ECOHEALTH ALLIANCE, INC.		

5	2018	Active	0
Total			3000

Collaborator	Tom, Hughes	Involve Humans:	No
Institution/Site:	Conservation Medicine, Ltd	FWA	Established
Phone:	(b) (6)	Involve Animals:	Yes
Email:	(b) (6)	Animal	Established
Address:	Suite 4A, Level 4, Main Office Tower Financial Park Complex Bandar Labuan Federal Territory of Labuan		

Support Year	Fiscal Year	Research Activities Status at Site	Estimated Total Cost at
1	2014	Inactive	0
2	2015	Inactive	0
3	2016	Active	0
4	2017	Active	0
5	2018	Active	0
Total			0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-01

Application Status: Awarded. Non-fellowships only Foreign Domestic with Foreign Component
 PD/PI Name: DASZAK, PETER Project Title: Understanding the Risk of Bat Coronavirus Emergence
 Institution: ECOHEALTH ALLIANCE, INC.

Clearance 212154

STATUS AND ACTION			
Action Date	Performed By	Status	Action Comments
3/17/17 5:14 AM	Frater, Eric	Approved	(b) (5)
3/13/17 10:13 AM	Officer, Jackie	Pending State Department Review	
3/13/17 10:09 AM	Bernabe, Gayle	Pending Agency Review	
3/2/17 3:37 PM	Stemmy, Erik	Initiated	

STATE DEPARTMENT CLEARANCE

Research

The aims of this research project are to examine the mechanism through which coronaviruses jump from animal hosts/reservoirs to humans (spillover events). To accomplish this work the PI and his team will conduct detailed surveillance for coronaviruses at eight sites throughout in Asia (China, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Thailand, and Vietnam). Sampling sites will include urban centers, rural areas, and live animal markets. Samples will be collected from animals from each of these sites, and will be analyzed to determine what coronaviruses are present, and whether the viruses are able to infect humans.

The investigators plan to collect samples from bats (900 samples total across all sites), rodents (900 samples total across all sites), and small carnivores such as palm civets and ferret badgers (500 samples total across all sites). Animals will be captured and lightly anesthetized if necessary. They will be swabbed (mouth/nose, urogenital tract, and rectum), and a small amount of blood will be collected. If available, feces and urine will also be collected. All wild animals will be released unharmed after sampling. Of animals that are collected from live markets, a maximum of two per species may be humanely euthanized for organ tissue sampling. All animal work will be performed by trained individuals in accordance with the American Veterinary Medical Association guidelines, and the project is overseen by veterinarians. This work has also been reviewed and approved by the investigator's Institutional Animal Care and Use Committee.

Contact Details:

	Contact	Email	Phone
IC Contact	Bernabe, Gayle	(b) (6)	
Agency Contact	Gupta, Ranjan		
Program Officer	Stemmy, Erik J.		
Grants Specialist	Greer, Jenny L.		
FOREIGN	THAILAND		
Clearance Type:	New		

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-01

Application Status: Awarded. Non-fellowships only

Foreign

Domestic with Foreign Component

PD/PI Name: DASZAK, PETER

Project Title:

Understanding the Risk of Bat
Coronavirus Emergence

Institution: ECOHEALTH ALLIANCE, INC.

Support Year	Fiscal Year	Research Activities Status at Country	Estimated Total Cost at Country
1	2014	Inactive	0
2	2015	Inactive	0
3	2016	Active	3000
4	2017	Active	0
5	2018	Active	0
Total			3000

Collaborator	Wacharapluesadee, Supaporn	Involve Humans:	No
Institution/Site:	King Chulalongkorn Memorial Hospital	FWA	Established
Phone:	(b) (6)	Involve Animals:	Yes
Email:	(b) (6)	Animal	Established
Address:	Neuroscience Center for Research and Development Rama 4 Road Bangkok Patumwan 10330		

Support Year	Fiscal Year	Research Activities Status at Site	Estimated Total Cost at
1	2014	Inactive	0
2	2015	Inactive	0
3	2016	Active	0
4	2017	Active	0
5	2018	Active	0
Total			0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-01

Application Status: Awarded. Non-fellowships only **Foreign** Domestic with Foreign Component
PD/PI Name: DASZAK, PETER **Project Title:** Understanding the Risk of Bat Coronavirus Emergence
Institution: ECOHEALTH ALLIANCE, INC.

Clearance 212155

STATUS AND ACTION			
Action Date	Performed By	Status	Action Comments
3/27/17 10:00 PM	AUTO_APPROVAL	Approved	
3/13/17 10:13 AM	Officer, Jackie	Pending State Department Review	
3/13/17 10:05 AM	Bernabe, Gayle	Pending Agency Review	
3/2/17 3:38 PM	Stemmy, Erik	Initiated	

STATE DEPARTMENT CLEARANCE

Research

The aims of this research project are to examine the mechanism through which coronaviruses jump from animal hosts/reservoirs to humans (spillover events). To accomplish this work the PI and his team will conduct detailed surveillance for coronaviruses at eight sites throughout in Asia (China, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Thailand, and Vietnam). Sampling sites will include urban centers, rural areas, and live animal markets. Samples will be collected from animals from each of these sites, and will be analyzed to determine what coronaviruses are present, and whether the viruses are able to infect humans.

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Contact Details:

	Contact	Email	Phone
IC Contact	Bernabe, Gayle	(b) (6)	
Agency Contact	Chung, Tina		
Program Officer	Stemmy, Erik J.		
Grants Specialist	Greer, Jenny L		

FOREIGN VIETNAM
Clearance Type: New

Support Year	Fiscal Year	Research Activities Status at Country	Estimated Total Cost at Country
1	2014	Inactive	0
2	2015	Inactive	0
3	2016	Active	3000
4	2017	Active	0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-01

Application Status:	Awarded. Non-fellowships only	Foreign	Domestic with Foreign Component
PD/PI Name:	DASZAK, PETER	Project Title:	Understanding the Risk of Bat Coronavirus Emergence
Institution:	ECOHEALTH ALLIANCE, INC.		

5	2018	Active	0
Total			3000

Collaborator	Nam, Nguyen Huu	Involve Humans:	No
Institution/Site:	Hanoi Agricultural University	FWA	Established
Phone:	(b) (6)	Involve Animals:	Yes
Email:	(b) (6)	Animal	Established
Address:	Faculty of Animal and Veterinary Science Trauquy Hanoi Gialam		

Support Year	Fiscal Year	Research Activities Status at Site	Estimated Total Cost at
1	2014	Inactive	0
2	2015	Inactive	0
3	2016	Active	0
4	2017	Active	0
5	2018	Active	0
Total			0

STATE DEPARTMENT CLEARANCE SNAPSHOTS for Grant Number : R01AI110964-01

Application Status:	Awarded. Non-fellowships only	Foreign	Domestic with Foreign Component
PD/PI Name:	DASZAK, PETER	Project Title:	Understanding the Risk of Bat Coronavirus Emergence
Institution:	ECOHEALTH ALLIANCE, INC.		

From: Lauer, Michael (NIH/OD) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=90FE9CAE30C64CFBB67ABD568E882796-LAUERM]
Sent: 4/27/2020 11:55:28 PM
To: Tabak, Lawrence (NIH/OD) [E] [/o=ExchangeLabs/ou=Exchange AdministrativeGroup (FYDIBOHF23SPDLT)/cn=Recipients/cn=02e22836b5ff4e9988e3770cfc7ee770-tabak]
CC: Lauer, Michael (NIH/OD) [E] [/o=ExchangeLabs/ou=Exchange AdministrativeGroup (FYDIBOHF23SPDLT)/cn=Recipients/cn=90fe9cae30c64cfbb67abd568e882796-lauerm]
Subject: Re:
Attachments: Daszak letter 4 24 20.pdf

Attached

On 4/27/20, 7:44 PM, "Tabak, Lawrence (NIH/OD) [E]" (b) (6) wrote:

please send me copy of the second letter re. wuhan

sent from my iPhone



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

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

24 April 2020

Drs. Aleksei Chmura and Peter Daszak
EcoHealth Alliance, Inc.
460 W 34th St
Suite 1701
New York, NY 10001

Re: Termination of NIH Grant R01 AI 110964

Dear Drs. Chmura and Daszak:

I am writing to notify you that the National Institute of Allergy and Infectious Diseases (NIAID), an Institute within the National Institutes of Health (NIH), under the Department of Health and Human Services (HHS) has elected to terminate the project *Understanding the Risk of Bat Coronavirus Emergence*, funded under grant R01 AI110964, for convenience. This grant project was issued under the authorization of Sections 301 and 405 of the Public Health Service Act as amended (42 USC 241 and 284). This grant was funded as a discretionary grant as outlined in the NIH Grants Policy Statement, which states that the decision not to award a grant, or to award a grant at a particular funding level, is at the discretion of the agency, in accordance with NIH's dual review system.

At this time, NIH does not believe that the current project outcomes align with the program goals and agency priorities. NIAID has determined there are no animal and human ethical considerations, as this project is not a clinical trial, but rather an observational study.

As a result of this termination, a total of \$369,819.56 will be remitted to NIAID and additional drawdowns will not be supported. The remaining funds have been restricted in the HHS Payment Management System, effective immediately.

Please let me know if you have any questions concerning the information in this letter.

Sincerely,

Lauer, Michael (NIH/OD) [E]

Digitally signed by Lauer, Michael (NIH/OD) [E]
Date: 2020.04.24 16:41:16 -04'00'

Michael S Lauer, MD
NIH Deputy Director for Extramural Research
Email: (b) (6)

cc: Dr. Erik Stemmy
Ms. Emily Linde



From: Lauer, Michael (NIH/OD) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=90FE9CAE30C64CFBB67ABD568E882796-LAUERM]
Sent: 4/28/2020 12:36:53 AM
To: Kosub, David (NIH/OD) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=3e3eccf57f4e4cfacaa7885f39bee5-kosubd]
CC: Lauer, Michael (NIH/OD) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=90fe9cae30c64cfbb67abd568e882796-lauerm]
Subject: Re: Hill Qs on WIV

Hi David – (b) (5)

Thanks, Mike

From: "Kosub, David (NIH/OD) [E]" (b) (6)
Date: Monday, April 27, 2020 at 9:39 AM
To: "Lauer, Michael (NIH/OD) [E]" (b) (6)
Subject: RE: Hill Qs on WIV

Thanks for this information Mike. Just want to confirm that (b) (5)

Thanks
David

From: Lauer, Michael (NIH/OD) [E] (b) (6)
Sent: Friday, April 24, 2020 4:26 PM
To: Kosub, David (NIH/OD) [E] (b) (6); Black, Jodi (NIH/OD) [E] (b) (6); Bulls, Michelle G. (NIH/OD) [E] (b) (6); Ta, Kristin (NIH/OD) [E] (b) (6)
Cc: Columbus, Megan (NIH/OD) [E] (b) (6); Rabin, Elise (NIH/OD) [E] (b) (6); Lauer, Michael (NIH/OD) [E] (b) (6)
Subject: Re: Hill Qs on WIV

Thanks David – here are thoughts:

Do we know why the amount went down in 2019? Just random fluctuation?

The first 5-year "Type 1" grant ended and the competing renewal, a "Type 2" started. The renewal proposal was not the same as the de novo one. It's not unusual for budget allocations to change (up or down) when a renewal grant is proposed and funded.

Who were the other subawardees? (i.e. the specific institutes in countries listed in the statement -- China, Thailand, Cambodia, Laos, Vietnam, Malaysia, Indonesia, and Myanmar). Joel later specified that he wants info for all subawards for all locations for all of those six years.

See attached State Department clearance documents. There may be more info through NIAID.

From: "Kosub, David (NIH/OD) [E]" (b) (6)
Date: Friday, April 24, 2020 at 2:22 PM
To: "Lauer, Michael (NIH/OD) [E]" (b) (6), "Black, Jodi (NIH/OD) [E]" (b) (6),
"Bulls, Michelle G. (NIH/OD) [E]" (b) (6), "Ta, Kristin (NIH/OD) [E]" (b) (6)
Cc: "Columbus, Megan (NIH/OD) [E]" (b) (6), "Rabin, Elise (NIH/OD) [E]" (b) (6)
Subject: FW: Hill Qs on WIV

Mike, Jodi, Michelle, and Kristin,

Please see the forwarded message below from OLPA. Greatly appreciate your advice on how to proceed.

Thank you
David

From: LaMontagne, Karen (NIH/OD) [E] (b) (6)
Sent: Friday, April 24, 2020 1:46 PM
To: Kosub, David (NIH/OD) [E] (b) (6)
Cc: Rabin, Elise (NIH/OD) [E] (b) (6)
Subject: Hill Qs on WIV

Hi, David and Elise,

Thank you for chatting earlier today. As discussed, OLPA received a number of Congressional inquiries inspired by media reports on the Wuhan Institute of Virology (WIV). We have satisfied most of the info requests but are seeking your help with a few outstanding questions from staff from the House LHHS Appropriations Subcommittee and Senator Cruz's office. NIAID now indicates that OER would be best positioned given that it is leading other efforts to request information from the PI, and that NIAID wouldn't have more information than OER would be providing.

We appreciate your sharing with Mike, Jodi, and Michelle to get answers to outstanding questions from the Hill. Unfortunately, these requests are already a bit stale since they were put into a holding pattern while information gathering efforts shifted over the last two weeks. If we can get a response by Tuesday 4/28, that would be extremely helpful.

For reference, here is a brief summary of what each staffer asked, what OLPA shared with them so far, and the **outstanding questions for which we are still seeking information (bolded below).**

HOUSE LHHS

- In response to her request for the funding history for the Wuhan Institute of Virology, we shared with Kathryn Salmon from House LHHS Appropriations a FY14-19 subaward funding chart that NIAID provided (pasted below my signature for reference).
- In follow-up, referencing that chart, Kathryn asks:
Do we know why the amount went down in 2019? Just random fluctuation? She added that some reports have said that this facility was cited for poor management and wants to know if that's why the amount went down.

SENATOR TED CRUZ

- In response to initial questions from Joel Heimbach from Sen. Cruz's staff, we shared an OD-cleared statement and the FY19 funding line only from the chart produced by NIAID (pasted below my signature for reference).
- In response to a follow-up asking for a detailed rundown of exactly how the \$76,301 (FY19) was spent by WIV, we shared the following program info from NIAID:

Additional detail about activities supported through the subaward to the Wuhan Institute of Virology is below.

Through project subawards, NIAID has supported the following activities at the Wuhan Institute of Virology: coronavirus screening and serology of non-human samples, viral pathogenesis, serological testing, host receptor binding, spike (S) protein sequencing, and in vitro and in vivo virus characterization. NIAID has not supported the creation of recombinant viruses at the Wuhan Institute of Virology.

- Joel again followed-up with these additional questions - we were able to answer Qs #1 and #2, but we **still need the information for #3**:
 - (1) who was the original/main project awardee;
 - (2) what entity made the subaward to the WIV; and,
 - (3) who were the other subawardees? (i.e. the specific institutes in countries listed in the statement -- China, Thailand, Cambodia, Laos, Vietnam, Malaysia, Indonesia, and Myanmar). Joel later specified that he wants info for all subawards for all locations for all of those six years.**

Again, thank you very much for your assistance with these outstanding Hill requests for information. Please let me know if you have any questions.

Karen

Karen LaMontagne
Office of Legislative Policy & Analysis
National Institutes of Health
P: (b) (6)

NIAID Response

Below is NIAID's response to recent congressional inquiries on this topic. Please note that NIAID would defer any questions about the care of laboratory animals to the National Institutes of Health Office of Laboratory Animal Welfare.

The National Institute of Allergy and Infectious Diseases (NIAID) continues to support research to understand the risk of bat coronavirus emergence in China and Southeast Asia. NIAID-supported scientists at EcoHealth Alliance and their collaborators at Wuhan Institute of Virology, Duke-National University of Singapore Medical School, and other organizations are working to better understand what factors allow coronaviruses to evolve and jump from animals into humans. Through project subawards, NIAID has supported the following activities at the Wuhan Institute of Virology: coronavirus screening and serology of non-human samples, viral pathogenesis, serological testing, host receptor binding, spike (S) protein sequencing, and *in vitro* and *in vivo* virus characterization. NIAID has not supported the

creation of recombinant viruses at the Wuhan Institute of Virology. NIAID funding for these activities through project subawards to the Wuhan Institute of Virology is outlined in the table below.

NIAID Subawards to Wuhan Institute of Virology

Fiscal Year	Project Number/ Title	Organization	Subaward Recipient	Subaward Amount
2019	R01AI110964: Understanding the Risk of Bat Coronavirus Emergence	EcoHealth Alliance	Wuhan Institute of Virology	\$76,301
2018	R01AI110964: Understanding the Risk of Bat Coronavirus Emergence	EcoHealth Alliance	Wuhan Institute of Virology	\$159,122
2017	R01AI110964: Understanding the Risk of Bat Coronavirus Emergence	EcoHealth Alliance	Wuhan Institute of Virology	\$159,122
2016	R01AI110964: Understanding the Risk of Bat Coronavirus Emergence	EcoHealth Alliance	Wuhan Institute of Virology	\$159,122
2015	R01AI110964: Understanding the Risk of Bat Coronavirus Emergence	EcoHealth Alliance	Wuhan Institute of Virology	\$139,015
2014	R01AI110964: Understanding the Risk of Bat Coronavirus Emergence	EcoHealth Alliance	Wuhan Institute of Virology	\$133,595
			Total FY 14-19	\$826,277

OD-cleared statement shared with Hill offices

Most emerging human viruses come from wildlife, and these represent a significant threat to public health and biosecurity in the US and globally, as demonstrated by the SARS epidemic of 2002-03, and the current COVID-19 pandemic. The grant you are referencing is a multi-site, multi-country project supporting research that aims to understand what factors allow coronaviruses, including close relatives to SARS, to evolve and jump into the human population and cause disease (called a spillover event). Specifically, the project includes studying viral diversity in animal (bats) reservoirs, surveying people that live in high-risk communities for evidence of bat-coronavirus infection, and conducting laboratory experiments to analyze and predict which newly-discovered viruses pose the greatest threat to human health. The \$3.7M dollar figure is the total funding over 6 years to all sites which include China, Thailand, Cambodia, Laos, Vietnam, Malaysia, Indonesia, and Myanmar. Additional details are available on the NIH RePORTER tool:

https://projectreporter.nih.gov/project_info_description.cfm?aid=9819304&icde=49588715&ddparam=&ddvalue=&ddsub=&cr=1&csb=default&cs=ASC&pball= .

Also, please note, scientific research indicates that there is no evidence that suggests the virus was created in a laboratory: <https://www.sciencedaily.com/releases/2020/03/200317175442.htm>

From: Lauer, Michael (NIH/OD) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=90FE9CAE30C64CFBB67ABD568E882796-LAUERM]
Sent: 4/28/2020 2:29:41 AM
To: OD-OER Directors [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=ed74f644b4524ecd8128095b3449b7f3-OD-OER Dire]; OER Press Group [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=0373283dff404a969ea109f86919dc9b-OER Press G]
CC: Lauer, Michael (NIH/OD) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=90fe9cae30c64cfbb67abd568e882796-lauerm]
Subject: FW: Politico: Trump cuts U.S. research on bat-human virus transmission over China ties

From: "Myles, Renate (NIH/OD) [E]" (b) (6)
Date: Monday, April 27, 2020 at 10:26 PM
To: "Collins, Francis (NIH/OD) [E]" (b) (6), NIH Director's Executive Committee <OD-SmallStaff@mail.nih.gov>
Cc: "Prince, Scott (NIH/OD) [E]" (b) (6), OCPLPressTeam <OCPLPressTeam@od.nih.gov>, "Black, Jodi (NIH/OD) [E]" (b) (6), OER Press Group <OERPressGroup@mail.nih.gov>
Subject: Politico: Trump cuts U.S. research on bat-human virus transmission over China ties

Health Care

Trump cuts U.S. research on bat-human virus transmission over China ties

The National Institutes of Health on Friday told EcoHealth Alliance, the study's sponsor for the past five years, that all future funding was cut.



The administrative building of the National Institutes of Health. | J. Scott Applewhite/AP Photo

By SARAH O W E R M O H L E

The Trump administration abruptly cut off funding for a project studying how coronaviruses spread from bats to people after reports linked the work to a lab in Wuhan, China, at the center of conspiracy theories about the Covid-19 pandemic's origins.

The National Institutes of Health on Friday told EcoHealth Alliance, the study's sponsor for the past five years, that all future funding was cut. The agency also demanded that the New York-based research nonprofit stop spending the \$369,819 remaining from its 2020 grant, according to emails obtained by POLITICO.

"At this time, NIH does not believe that the current project outcomes align with the program goals and agency priorities," Michael Lauer, the agency's deputy director for extramural research, wrote in a letter to EcoHealth Alliance officials.

The group caught national attention a week ago after reports swirled that millions from its NIH grants had been sent to the Wuhan Institute of Virology, a research facility in the city where the coronavirus pandemic originated. In an email last week to NIH officials, EcoHealth Alliance President Pete Daszak denied giving any money this year to the Wuhan lab, although researchers from the facility have collaborated with EcoHealth Alliance scientists on research supported by an earlier grant.

The Wuhan lab is at the center of conspiracy theories alleging that the coronavirus outbreak began when the virus escaped the facility. U.S. intelligence agencies and scientists have not found any evidence to support the rumors.

Meanwhile, the NIH's strategic plan for studying the novel coronavirus, released Thursday, lays out four key priorities — including understanding its origin and transmission, in line with the EcoHealth alliance's broader investigation of bat coronaviruses. The agency did not respond to a request for comment on its decision to terminate the group's funding.

In a statement, the EcoHealth Alliance said it wanted to know more about the NIH's reasoning. "For the past 20 years our organization has been investigating the sources of emerging diseases such as COVID-19," the group said. "We work in the United States and in over 25 countries with institutions that have been pre-approved by federal funding agencies to do scientific research critical to preventing pandemics. We are planning to talk with NIH to understand the rationale behind their decision."

Suddenly ending a grant early is an unusual move for the NIH, which typically takes such steps only when there is evidence of scientific misconduct or financial improprieties — neither of which it has alleged took place in this case.

The EcoHealth Alliance has received more than \$3.7 million since 2015 for its research on the risks of coronavirus spread through bats and the potential for spillover into humans. The effort has produced at least 20 scientific papers, including several published in prominent journals such as Nature.

As recently as April 2018, the NIH issued a press release promoting a study linked to the research project, whose authors included a scientist at the Wuhan lab.

But the project had turned into a political liability for the NIH by the time Lauer emailed Daszak on April 20 asking for a list of all Chinese participants.

A Newsmax reporter asked President Donald Trump about the research project in an April 17 press briefing, suggesting that all \$3.7 million had gone to the Wuhan lab.

"We will end that grant very quickly," Trump said. "It was granted quite awhile ago," he added, referencing the Obama administration. "Who was president then, I wonder?"

The NIH awarded the original grant for the project during the Obama administration, but renewed it in July 2019. The funding allotted this year, and cut last week, came from the Trump administration.

Days after Trump's briefing promise, Republican lawmakers wrote to leadership asking that no stimulus funding go to the Wuhan lab, citing State Department cables about safety concerns. The White House did not respond to a request for comment.

By that time, NIH officials had contacted EcoHealth questioning the group about Chinese links to its bat-coronavirus research project.

"We need to know all sites in China that have been in any way linked to this award," Lauer wrote in one e mail to the researchers. In a separate April 20 message to the group he said "it would be helpful for us to know about all China-based participants in this work since the Type 1 grant started in 2014 — who they were and how much money they received. The sooner you can get us that information, the better."

Daszak told Lauer that EcoHealth would need time to go through its request for information but that "I can categorically state that no fund from [the grant] have been sent to the Wuhan Institute of Virology, nor has any contract been signed."

Within days, NIH told EcoHealth that all future funding was canceled and it would need to stop spending its remaining 2020 grant monies immediately.

EcoHealth Alliance has secured dozens of contracts amounting to millions of dollars from multiple government sources, including health agencies, the Department of Defense and the Department of Homeland Security.

From: Bulls, Michelle G. (NIH/OD) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=B366F1A4382D44C1BDE626E7730C3DD4-BULLSMG]
Sent: 4/16/2020 1:04:32 PM
To: Black, Jodi (NIH/OD) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=782921b9f08249b59a582e93f6963f5f-blackj]
CC: Lauer, Michael (NIH/OD) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=90fe9cae30c64cfbb67abd568e882796-lauerm]
Subject: RE: request for a call...

Ok and I don't talk about these sensitive cases w/anyone and won't.

From: Black, Jodi (NIH/OD) [E] (b) (6)
Sent: Thursday, April 16, 2020 8:44 AM
To: Bulls, Michelle G. (NIH/OD) [E] (b) (6)
Cc: Lauer, Michael (NIH/OD) [E] (b) (6)
Subject: Re: request for a call...

Hi Michelle, (b) (5)

Best,
Jodi

Jodi B. Black, PhD, MMSc
Deputy Director
Office of Extramural Research, NIH

From: Michelle Bulls (b) (6)
Date: Thursday, April 16, 2020 at 8:37 AM
To: Jodi OER (b) (6)
Cc: Mike Lauer (b) (6)
Subject: RE: request for a call...

Happy to help.

From: Black, Jodi (NIH/OD) [E] (b) (6)
Sent: Wednesday, April 15, 2020 4:07 PM
To: Bulls, Michelle G. (NIH/OD) [E] (b) (6)
Cc: Lauer, Michael (NIH/OD) [E] (b) (6)
Subject: Re: request for a call...

Ok thanks for working on this with Emily.

Best,
Jodi

Jodi B. Black, PhD, MMSc
Deputy Director
Office of Extramural Research, NIH

From: Michelle Bulls [REDACTED] (b) (6)
Date: Wednesday, April 15, 2020 at 3:49 PM
To: Jodi OER [REDACTED] (b) (6)
Cc: Mike Lauer [REDACTED] (b) (6), Michelle Bulls [REDACTED] (b) (6)
Subject: FW: request for a call...

FYI. Urgent.

(b) (5)

Thanks,
Michelle

From: Linde, Emily (NIH/NIAID) [E] [REDACTED] (b) (6)
Sent: Wednesday, April 15, 2020 12:03 PM
To: Bulls, Michelle G. (NIH/OD) [E] [REDACTED] (b) (6); Ta, Kristin (NIH/OD) [E] [REDACTED] (b) (6); Tarwater, Robert (NIH/OD) [E] [REDACTED] (b) (6); Dean, Diane (NIH/OD) [E] [REDACTED] (b) (6)
Subject: request for a call...

Hello,

As you know POTUS has put a halt on funds to WHO, U01AI139547, and we are getting calls from the Senate to terminate funding for another grant, R01AI110964, – you may have seen some articles.

Can we have a call to discuss the impact and options?

Many thanks,

Emily

Emily Linde

Director, Grants Management Program
NIAID, NIH, DHHS
Telephone Number: [REDACTED] (b) (6)
Email Address: [REDACTED] (b) (6)

Disclaimer:

The information in this e-mail and any of its attachments is confidential and may contain sensitive information. It should not be used by anyone who is not the original intended recipient. If you have received this e-mail in error please inform the sender and delete it from your mailbox or any other storage devices. National Institute of Allergy and Infectious Diseases shall not accept liability for any statements made that are sender's own and not expressly made on behalf of the NIAID by one of its representatives.

State Department cables warned of safety issues at Wuhan lab studying bat coronaviruses

Josh Rogin



A woman wearing a protective suit at a hospital in Wuhan, China. (Aly Song/Reuters)

Two years before the novel coronavirus pandemic upended the world, U.S. Embassy officials visited a Chinese research facility in the city of Wuhan several times and sent two official warnings back to Washington about inadequate safety at the lab, which was conducting risky studies on coronaviruses from bats. The cables have fueled discussions inside the U.S. government about whether this or another Wuhan lab was the source of the virus — even though conclusive proof has yet to emerge.

In January 2018, the U.S. Embassy in Beijing took the unusual step of repeatedly sending U.S. science diplomats to the Wuhan Institute of Virology (WIV), which had in 2015 become China's first laboratory to achieve the highest level of international bioresearch safety (known as BSL-4). WIV issued a news release in English about the last of these visits, which occurred on March 27, 2018. The U.S. delegation was led by Jamison Fouss, the consul general in Wuhan, and Rick Switzer, the embassy's counselor of environment, science, technology and health. Last week, WIV erased that statement from its website, though it remains archived on the Internet.

Full coverage of the coronavirus pandemic

What the U.S. officials learned during their visits concerned them so much that they dispatched two diplomatic cables categorized as Sensitive But Unclassified back to Washington. The cables warned about safety and management weaknesses at the WIV lab and proposed more attention and help. The first cable, which I obtained, also warns that the lab's work on bat coronaviruses and their potential human transmission represented a risk of a new SARS-like pandemic.

"During interactions with scientists at the WIV laboratory, they noted the new lab has a serious shortage of appropriately trained technicians and investigators needed to safely operate this high-containment laboratory," states the Jan. 19, 2018, cable, which was drafted by two officials from the embassy's environment, science and health sections who met with the WIV scientists. (The State Department declined to comment on this and other details of the story.)

Global Opinions writer Josh Rogin has obtained a 2018 U.S. diplomatic cable urging Washington to better support a Chinese lab researching bat coronaviruses. (Joshua Carroll, Kate Woodsome, Josh Rogin/The Washington Post)

The Chinese researchers at WIV were receiving assistance from the Galveston National Laboratory at the University of Texas Medical Branch and other U.S. organizations, but the Chinese requested additional help. The cables argued that the United States should give the Wuhan lab further support, mainly because its research on bat coronaviruses was important but also dangerous.

As the cable noted, the U.S. visitors met with Shi Zhengli, the head of the research project, who had been publishing studies related to bat coronaviruses for many years. In November 2017, just before the U.S. officials' visit, Shi's team had published research showing that horseshoe bats they had collected from a cave in Yunnan province were very likely from the same bat population that spawned the SARS coronavirus in 2003.

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"Most importantly," the cable states, "the researchers also showed that various SARS-like coronaviruses can interact with ACE2, the human receptor identified for SARS-coronavirus. This finding strongly suggests that SARS-like coronaviruses from bats can be transmitted to humans to cause SARS-like diseases. From a public health perspective, this makes the continued surveillance of SARS-like coronaviruses in bats and study of the animal-human interface critical to future emerging coronavirus outbreak prediction and prevention."

The research was designed to prevent the next SARS-like pandemic by anticipating how it might emerge. But even in 2015, other scientists questioned whether Shi's team was taking unnecessary risks. In October 2014, the U.S. government had imposed a moratorium on funding of any research that makes a virus more deadly or contagious, known as "gain-of-function" experiments.

As many have pointed out, there is no evidence that the virus now plaguing the world was engineered; scientists largely agree it came from animals. But that is not the same as saying it didn't come from the lab, which spent years testing bat coronaviruses in animals, said Xiao Qiang, a research scientist at the School of Information at the University of California at Berkeley.

"The cable tells us that there have long been concerns about the possibility of the threat to public health that came from this lab's research, if it was not being adequately conducted and protected," he said.

There are similar concerns about the nearby Wuhan Center for Disease Control and Prevention lab, which operates at biosecurity level 2, a level significantly less secure than the level-4 standard claimed by the Wuhan Institute of Virology lab, Xiao said. That's important because the Chinese government still refuses to answer basic questions about the origin of the novel coronavirus while suppressing any attempts to examine whether either lab was involved.

Sources familiar with the cables said they were meant to sound an alarm about the grave safety concerns at the WIV lab, especially regarding its work with bat coronaviruses. The embassy officials were calling for more U.S. attention to this lab and more support for it, to help it fix its problems.

"The cable was a warning shot," one U.S. official said. "They were begging people to pay attention to what was going on."

No extra assistance to the labs was provided by the U.S. government in response to these cables. The cables began to circulate again inside the administration over the past two months as officials debated whether the lab could be the origin of the pandemic and what the implications would be for the U.S. pandemic response and relations with China.

Inside the Trump administration, many national security officials have long suspected either the WIV or the Wuhan Center for Disease Control and Prevention lab was the source of the novel coronavirus outbreak. According to the New York Times, the intelligence community has provided no evidence to confirm this. But one senior administration official told me that the cables provide one more piece of evidence to support the possibility that the pandemic is the result of a lab accident in Wuhan.

"The idea that it was just a totally natural occurrence is circumstantial. The evidence it leaked from the lab is circumstantial. Right now, the ledger on the side of it leaking from the lab is packed with bullet points and there's almost nothing on the other side," the official said.

As my colleague David Ignatius noted, the Chinese government's original story — that the virus emerged from a seafood market in Wuhan — is shaky. Research by Chinese experts published in the Lancet in January showed the first known patient, identified on Dec. 1, had no connection to the market, nor did more than one-third of the cases in the first large cluster. Also, the market didn't sell bats.

The Opinions section is looking for stories of how the coronavirus has affected people of all walks of life. Write to us.

Shi and other WIV researchers have categorically denied this lab was the origin for the novel coronavirus. On Feb. 3, her team was the first to publicly report the virus known as 2019-nCoV was a bat-derived coronavirus.

The Chinese government, meanwhile, has put a total lockdown on information related to the virus origins. Beijing has yet to provide U.S. experts with samples of the novel coronavirus collected from the earliest cases. The Shanghai lab that published the novel coronavirus genome on Jan. 11 was quickly shut down by authorities for "rectification." Several of the doctors and journalists

who reported on the spread early on have disappeared.

On Feb. 14, Chinese President Xi Jinping called for a new biosecurity law to be accelerated. On Wednesday, CNN reported the Chinese government has placed severe restrictions requiring approval before any research institution publishes anything on the origin of the novel coronavirus.

The origin story is not just about blame. It's crucial to understanding how the novel coronavirus pandemic started because that informs how to prevent the next one. The Chinese government must be transparent and answer the questions about the Wuhan labs because they are vital to our scientific understanding of the virus, said Xiao.

We don't know whether the novel coronavirus originated in the Wuhan lab, but the cable pointed to the danger there and increases the impetus to find out, he said.

"I don't think it's a conspiracy theory. I think it's a legitimate question that needs to be investigated and answered," he said. "To understand exactly how this originated is critical knowledge for preventing this from happening in the future."

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[David Ignatius: How did covid-19 begin? Its initial origin story is shaky.](#)

[Marc A. Thiessen: China should be legally liable for the pandemic damage it has done](#)

[We need smart solutions to mitigate the coronavirus's impact. Here are 23.](#)

Michael L. Barnett and David C. Grabowski: Covid-19 is ravaging nursing homes. We're getting what we paid for.

Megan McArdle: Why the lockdown skeptics are wrong

Xinyan Yu: My hometown showed us how a pandemic begins. Could it also show us how one ends?

China Lab In Focus Of Coronavirus Outbreak

Don Reisinger 05:35pm EDT



People wearing face masks wait to buy roasted duck at a restaurant in Wuhan, China's central Hubei ... [+]

AFP via Getty Images

For months, anyone who said the new SARS coronavirus might have come out of a virology research lab in Wuhan, China was dismissed as a right wing xenophobe.

When Zero Hedge — a financial news website whose comment section certainly fits the right wing stereotype — first put out its own bombastic version of the bat-borne virus escaping a research lab, they were banned from

Twitter.

FOX host Tucker Carlson starting banging this drum last week.

But on Tuesday, the narrative flipped. It's no longer a story shared by China bears and President Trump fans. Today, Josh Rogin, who is said to be as plugged into the State Department as any *Washington Post* columnist, was shown documents dating back to 2015 revealing how the U.S. government was worried about safety standards at that Wuhan lab. In fact, they were worried that one day, one of these experiments — including the one on bat coronaviruses — could escape and become a global nightmare.

In a best case scenario, Rogin's reveal may ultimately get China to cooperate more in regards to the origins of the virus, setting the table for better drugs to mitigate or even cure the deadly COVID-19. At the very least, for a government that likes to save face, the fact that the U.S. government helped build and fund the Wuhan virology lab in question should be enough for China to open that info vault to scientists at the World Health Organization.

[Washington Post Opinion | State Department cables warned of safety issues at Wuhan lab studying bat coronaviruses](#)

"I don't think it's a conspiracy theory. I think it's a legitimate question that needs to be investigated and answered," Xiao Qiang, a research scientist at the School of Information at the University of California at Berkeley told Rogin. "To understand exactly how this originated is critical knowledge for preventing this from happening in the future."

China has not been forthcoming about the new SARS coronavirus origins. They're not being entirely transparent, despite being heralded as such by some leaders.

An example of that secrecy from Rogin:

"In January 2018, the U.S. Embassy in Beijing took the unusual step of repeatedly sending U.S. science diplomats to the Wuhan Institute of Virology (WIV), which had in 2015 become China's first laboratory to achieve the highest level of international bioresearch safety (known as BSL-4). WIV issued a news release in English about the last of these visits, which occurred on March 27, 2018. The U.S. delegation was led by Jamison Fouss, the consul general in Wuhan, and Rick Switzer, the embassy's counselor of environment, science, technology and health. Last week, WIV erased that statement from its website, though it remains archived on the Internet."



A medical worker cleans up, Wuhan, Hubei Province, China, April 14, 2020. Tomorrow, leishenshan ... [+]

Barcroft Media via Getty Images

Worth noting, at least one young researcher from the lab —Huang Yanling — a graduate student rumored to be patient zero — was scrubbed from the lab's website.

The first, mysterious samples from infected individuals arrived at Wuhan Institute of Virology on December 30, 2019.

According to the Scientific American magazine, Shi Zhengli, a renown bat scientist in China, was told by the Institute's director that the Wuhan Center for Disease Control and Prevention — modeled after our own CDC — had detected a novel coronavirus in two hospital patients. They were suffering from an odd pneumonia. They wanted her laboratory to investigate because the virus belonged to the same family of bat-borne viruses that caused SARS, a disease that — by comparison — only infected 8,100 people and killed just

under 800 in an 8 month period in 2002-03.

"I had never expected this kind of thing to happen in Wuhan, in central China," she was quoted as saying by [Scientific American on March 11](#). Her studies had shown that the southern, subtropical areas of Guangdong, Guangxi and Yunnan had the greatest risk of coronaviruses jumping to humans from animals—particularly bats, a known reservoir for many viruses. If bat coronaviruses were the culprit, she recalled to Scientific American, "could they have come from our lab?"

She has since promised the world that it did not come from her lab, though how she would know that for sure is unknown. We don't know where she is. If she is making the media rounds on Chinese television, few in the U.S. would believe her at this point.

Her research on bat coronaviruses goes back to 2015. Here is [one published in 2015](#) in Nature magazine. There is a lot of information about this new SARS, yet the world still seems stuck in the unknowns.

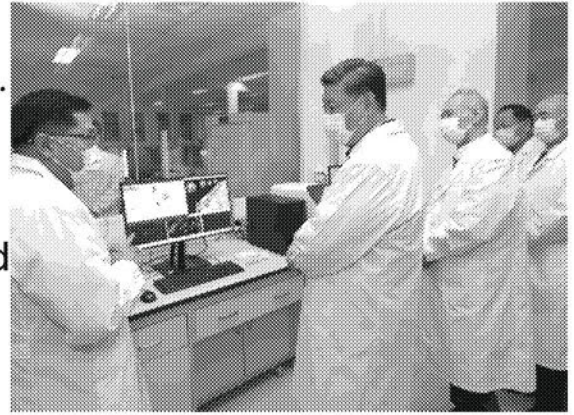
The U.S. government helped build and fund Wuhan virology labs. The thinking was that it was important for China to get up to par in the global life sciences. It was already a known center of previous outbreaks. Investing there and educating them on international safety standards was just preventative medicine.

Rogin's reporting suggests that government officials were well aware of the research being conducted in the lab on bat coronaviruses and were worried that the lab still had sub-par safety standards.

Rogin writes that, "What the U.S. officials learned during their visits concerned them so much that they dispatched two diplomatic cables categorized as Sensitive But Unclassified back to Washington. The cables warned about

safety and management weaknesses at the WIV lab and proposed more attention and help. The first cable, which I obtained, also warns that the lab's work on bat coronaviruses and their potential human transmission represented a risk of a new SARS-like pandemic."

Rogin's article probably stemmed from conversations with someone inside the State Department boiling at the rim over many weeks as the U.S. faces a "stop the world" moment because of this pandemic.



Chinese President Xi Jinping hears about the progress on a vaccine at the Academy of Military ... [+]

Xinhua News Agency/Getty Images

Over the weekend, the Chinese government banned academic and other research institutions from publishing its research on coronaviruses on their websites.

The thinking there is, perhaps, that people in the U.S. and Europe are using those studies to place blame on the Chinese government. China has been working overtime to convince people that questioning the origin of the disease is racist.

The Washington Post story today brings the possibility of a lab leak into the mainstream. It moves the needle on getting a clearer handle on the origin of the virus, and that could eventually lead to more cooperation between the U.S. and China in making sure this does not happen again.

7 Of The Best Gaming Chairs For The Serious Gamer

F

Shopping

I write about technology and video games for Forbes Finds.

Forbes and/or the author may earn a commission on sales made from links on this page.

If you've been playing video games all this time without cushioning yourself within the comforting confines of a bespoke gaming chair, you're missing out. Gaming chairs are designed to offer a supportive and cozy experience while looking right at home alongside your gaming PC or console.

With gaming chairs, you'll find seats that are typically comfortable, look good and offer a variety of color and material options. Maintaining a good posture while sitting for long periods is of paramount importance, and these chairs will help you do just that.

The following were selected as some of the best gaming chairs due to their build quality, support and comfort, as well as style, looks and any additional features. They are also all reasonably priced for what they offer.

Vertagear Racing Series S-Line SL4000 Gaming Chair Black/Blue Edition





Walmart

Vertagear Racing Series S-Line SL4000 Gaming Chair Black/Blue Edition

450

The Vertagear S-Line SL4000 is built for comfort. The chair has supportive padding, which is perfect for gamers who want to game for multiple hours in a single session. The chair is easy to assemble too — one person can put it together within 30 minutes or so.

On the bottom of the chair, there are custom Penta RS1 casters, which are coated with PU for a soft and smooth gliding experience on the chair, so moving around shouldn't feel bumpy.

The chair is a little expensive depending on the color you get, but it's still a great choice and should create an awesome gaming experience.

Noblechairs Epic Gaming Chair



Amazon

Noblechairs Epic Gaming Chair

419

The Noblechairs Epic is an excellent gaming chair that comes in your choice of

PU leather, NAPPA leather or real leather. It has air gaps at the top to improve airflow to help keep you cool and is built with ergonomics in mind, so you can sit more comfortably. In fact, Noblechairs said that the chairs will conform to the shape of your back and has obtained international certifications for the design.

Like the Secret Lab Omega, the Noblechairs Epic has a tilting mechanism that will allow you to lock it into place wherever you see fit. That allows you to obtain the perfect recline while you're playing games and dramatically enhances the broader experience. It even comes with what Noblechairs calls 4D armrests that let you adjust their height, depth, width and angle to maximize comfort.

Secretlab Omega 2020 Prime 2.0 PU Leather LCS Gaming Chair



Amazon

Secretlab Omega 2020 Prime 2.0 PU Leather LCS Gaming Chair

350

If you like your gaming chair to look a little more refined, a little less colorful and more demure, then the SecretLab Omega is a great choice. Not only is it competitively priced, but it offers heavy discounts if you shop directly, whether you opt for the more affordable PU leather, fabric covering or even its more premium leather option, though that does come at an added cost.

Updated in 2020, the Omega is the mid-size option that SecretLab offers, fitting everyone up to and below 5'11. There are larger and smaller offerings for those who fall outside the standard height and weight range though, with all shapes and sizes catered to.

Whichever size you opt for, you'll be able to enjoy the Omega's built-in lumbar support (no pillow required), durable armrests and even a gel-lined neck pillow to help keep you cool during the most intense of gaming sessions.

GTRACING Gaming Chair Racing Chair





Amazon

GTRACING Gaming Chair Racing Chair

156

It might not have the catchiest of names, but the GTRacing Pro GTF88 is an excellent gaming chair at an even more excellent price. Reduced to under \$150 at the time of writing, it's supremely affordable when compared with some of its contemporaries, and though it doesn't have the most high-end of feature sets, it's still a great gaming chair that will both support and comfort you no matter what game you're playing and for how long.

With a sturdy metal frame and ergonomic design, your back, shoulders and arms are all well supported, making sure that you don't develop poor posture habits, the bane of any gamer. That includes pillows for lumbar support and headrest, each of which — and the chair itself — are packed with high-density foam for a superior seating experience.

You can also customize the chair to your heart's desire, with options for swivel, reclining, rocking and height adjustment. Even the armrests can be rotated and height adjusted.

Available in a variety of colors and coated in 100 percent Grade A PU leather, this racing-inspired seat will be a great addition to your gaming arsenal at an affordable price.

Corsair CF-9010029-WW T3 RUSH Gaming Chair



Newegg

Corsair CF-9010029-WW T3 RUSH Gaming Chair

424

Corsair might be most well known for starting the RGB revolution on PC components, but it also makes fantastic gaming chairs; particularly of the mesh fabric kind. Its T3 Rush is the latest generation of gaming chair from the component company and it's only improved on what came before.

Designed to help alleviate heat buildup that is all too commonplace on some gaming chairs (particularly with PU leather) the T3 Rush is covered entirely in a soft fabric that makes it breathable, comfortable and soft to the touch.

With included neck cushion and memory foam lumbar support, the T3 Rush sacrifices nothing in its goal to improve comfort and support. Supremely adjustable, you can change the angle of the seat until it's practically a bed, sit straight up, tweak the height and even adjust the orientation of the armrests through four dimensions to make your T3 look and feel exactly how you like it.

Arozzi Verona Junior Gaming Chair for Kids



Amazon

Arozzi Verona Junior Gaming Chair for Kids

249

Not everyone is as hulking as their gaming avatars, and not everyone who needs a gaming chair is an adult. The Arozzi Verona Junior gaming chair is designed for growing gamers and those with a smaller than average physical footprint, with a maximum weight of just 130lbs. But by catering to such a niche, it offers a fantastic experience specifically tailored to that body type.

Ergonomically designed for a healthy posture, the Verona Junior enjoys both lumbar and headrest pillows, as well as armrests that can be tweaked to the exact position you need them to be in. You can rotate them, or adjust them up and down, though there are no lateral movement options.

Available in a variety of color options and with a comfortable, easy-to-clean pleather exterior, the Verona Junior is a fantastic gaming chair for a growing gamer or someone with a slighter build.

Nitro Concepts S300 EX Gaming Chair



Amazon

NITRO CONCEPTS S300 EX Gaming Chair

300

Designed to be its most comfortable gaming chair yet, Nitro Concepts' S300

EX builds on its already sterling pedigree for gaming chair production, with a few new additions. Integrating its new Health Enhancing Adjustment Technology, or H.E.A.T., it leverages lumbar and head support pillows for individual adjustment to the unique contours of your body. They're backed up by cooling holes in the neck-rest, making sure that even with the nylon seat-coating, you'll never get too hot during intense play.

They're built atop a steel frame for additional support, which can be leaned back, rocked, height adjusted and rotated, while the armrests can move up, down, forward and backwards, letting you make this gaming chair just right for your particular seating habits. It's also available in four stylish color options, each with color matching stitching and attractive accents.

Don't want something gaudy? Nitro Concepts has you covered too. The Stealth color option makes everything black, letting your gaming chair blend into the background so you can focus on your game and not look like a stereotypical "gamer" while doing it. You might even be able to swing it as an office chair upgrade.



I'm a freelance technology, video game, and entertainment journalist. I've been writing about the world of technology, video games, and entertainment for the last decade.

...

The Trail Leading Back to the Wuhan Labs

Jim Geraghty April 3, 2020 1:20 PM



Medical workers in protective suits attend to a patient inside an isolated ward of the Wuhan Red Cross Hospital in Wuhan, the epicenter of the novel coronavirus outbreak, in Hubei Province, China, February 16, 2020. (*China Daily via Reuters*)

There's no proof the coronavirus accidentally escaped from a laboratory, but we can't take the Chinese government's denials at face value.

NRPLUS MEMBER
ARTICLE

/ t is understandable that many would be wary of the notion that the origin of the coronavirus could be discovered by some documentary filmmaker who used to live in China. Matthew Tye, who creates YouTube videos, contends he has identified the source of the coronavirus — and a great deal of the information that he presents, obtained from public records posted on the

Internet, checks out.

The Wuhan Institute of Virology in China indeed posted a job opening on November 18, 2019, "asking for scientists to come research the relationship between the coronavirus and bats."



The Google translation of the job posting is: "Taking bats as the research object, I will answer the molecular mechanism that can coexist with Ebola and SARS- associated coronavirus for a long time without disease, and its relationship with flight and longevity. Virology, immunology, cell biology, and multiple omics are used to compare the differences between humans and other mammals." ("Omics" is a term for a subfield within biology, such as genomics or glycomics.)

PI Introduction:

Peng Zhou, Ph.D., Researcher, Wuhan Institute of Virology, Chinese Academy of Sciences, and Leader of Bat Virus Infection and Immunization. He received his PhD in Wuhan Virus Research Institute in 2010 and has worked on bat virus and immunology in Australia and Singapore. In 2009, he took the lead in starting the research on the immune mechanism of bat long-term carrying and transmitting virus in the world. So far, he has published more than 30 SCI articles, including the first and corresponding author's *Nature*, *Cell Host Microbe* and *PNAS*. At present, research on bat virus and immunology is continuing, and it has received support from the National Excellent Youth Fund, the Pilot Project of the Chinese Academy of Sciences, and the Major Project of the Ministry of Science and Technology.

The main research directions of the research group:

Taking bats as the research object, I will answer the molecular mechanism that can coexist with Ebola and SARS-associated corona virus for a long time without disease, and its relationship with flight and longevity. Virology, immunology, cell biology, and multiple omics are used to compare the differences between humans and other mammals.

On December 24, 2019, the Wuhan Institute of Virology posted a second job posting. The translation of that posting includes the declaration, "long-term research on the pathogenic biology of bats carrying important viruses has confirmed the origin of bats of major new human and livestock infectious diseases such as SARS and SADS, and a large number of new bat and rodent new viruses have been discovered and identified."

PI Introduction

Zhengli Shi, Ph.D., Researcher, Leader of Emerging Virus Group, Wuhan Institute of Virology, Chinese Academy of Sciences, Director of Emerging Infectious Disease Research Center of Wuhan Institute of Virology, Chinese Academy of Sciences, Editor-in-Chief, *Virologica Sinica*. Long-term research on the pathogenic biology of bats carrying important viruses has confirmed the origin of bats of major new human and livestock infectious diseases such as SARS and SADS, and a large number of new bat and rodent new viruses have been discovered and identified. So far in *Nature*, *Science*, *Nat Rev Microbiol*, the *Cell Host Microbe*, *Nat Microbiol*, *PLoS Pathog* and other SCI papers published journals 110 over papers, 2014 onwards for five consecutive years was selected Elsevier "China highly cited scholars' list (Immunology and Microbiology)". Has won the "advanced worker" of the Chinese Academy of Sciences, the "May 1 Labor Medal", Hubei Province has outstanding contributions to young and middle-aged experts, Chinese Academy of Sciences "Excellent Graduate Instructor", French Palm Education Knight Medal and other honors. As the first person to complete the research on "Chinese bat carrying important viruses", he won the first prize of the 2017 Hubei Natural Science Award and the second prize of the 2018 National Natural Science Award. Elected to the American Academy of Microbiology in 2019.

Tye contends that that posting meant, "we've discovered a new and terrible virus, and would like to recruit people to come deal with it." He also contends that "news didn't come out about coronavirus until ages after that." Doctors in

Wuhan knew that they were dealing with a cluster of pneumonia cases as December progressed, but it is accurate to say that a very limited number of people knew about this particular strain of coronavirus and its severity at the time of that job posting. By December 31, about three weeks after doctors first noticed the cases, the Chinese government notified the World Health Organization and the first media reports about a “mystery pneumonia” appeared outside China.

Scientific American verifies much of the information Tye mentions about Shi Zhengli, the Chinese virologist nicknamed “Bat Woman” for her work with that species.

Shi — a virologist who is often called China’s “bat woman” by her colleagues because of her virus-hunting expeditions in bat caves over the past 16 years — walked out of the conference she was attending in Shanghai and hopped on the next train back to Wuhan. “I wondered if [the municipal health authority] got it wrong,” she says. “I had never expected this kind of thing to happen in Wuhan, in central China.” Her studies had shown that the southern, subtropical areas of Guangdong, Guangxi and Yunnan have the greatest risk of coronaviruses jumping to humans from animals — *particularly bats, a known reservoir for many viruses. If coronaviruses were the culprit, she remembers thinking, “could they have come from our lab?”*

... By January 7 the Wuhan team determined that the new virus had indeed caused the disease those patients suffered — a conclusion based on results from polymerase chain reaction analysis, full genome sequencing, antibody tests of blood samples and the virus’s ability to infect human lung cells in a petri dish. The genomic sequence of the virus — now officially called SARS-CoV-2 because it is related to the SARS pathogen — was 96 percent identical to that of a coronavirus the researchers had identified in

horseshoe bats in Yunnan, they reported in a paper published last month in *Nature*. "It's crystal clear that bats, once again, are the natural reservoir," says Daszak, who was not involved in the study.

Some scientists aren't convinced that the virus jumped straight from bats to human beings, but there are a few problems with the theory that some other animal was an intermediate transmitter of COVID-19 from bats to humans:

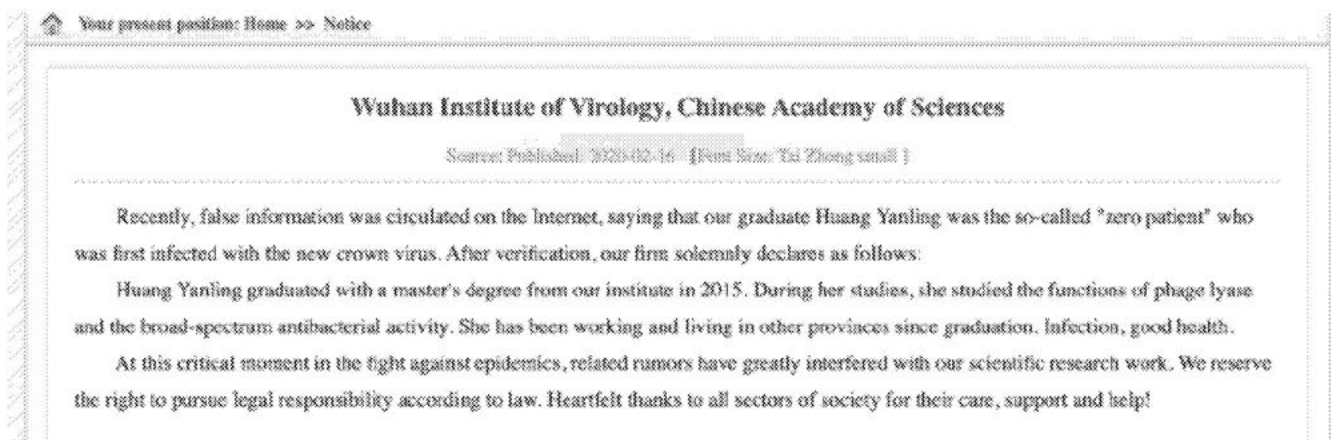
Analyses of the SARS-CoV-2 genome indicate a single spillover event, meaning the virus jumped only once from an animal to a person, which makes it likely that the virus was circulating among people before December. Unless more information about the animals at the Wuhan market is released, the transmission chain may never be clear. There are, however, numerous possibilities. A bat hunter or a wildlife trafficker might have brought the virus to the market. Pangolins happen to carry a coronavirus, which they might have picked up from bats years ago, and which is, in one crucial part of its genome, virtually identical to SARS-CoV-2. But no one has yet found evidence that pangolins were at the Wuhan market, or even that vendors there trafficked pangolins.

On February 4 — one week before the World Health Organization decided to officially name this virus "COVID-19" — the journal *Cell Research* posted a notice written by scientists at the Wuhan Institute of Virology about the virus, concluding, "our findings reveal that remdesivir and chloroquine are highly effective in the control of 2019-nCoV infection in vitro. Since these compounds have been used in human patients with a safety track record and shown to be effective against various ailments, we suggest that they should be assessed in human patients suffering from the novel coronavirus disease." One of the authors of that notice was the "bat woman," Shi Zhengli.






In his YouTube video, Tye focuses his attention on a researcher at the Wuhan

Institute of Virology named Huang Yanling: "Most people believe her to be patient zero, and most people believe she is dead."

There was enough discussion of rumors about Huang Yanling online in China to spur an official denial. On February 16, the Wuhan Institute of Virology denied that patient zero was one of their employees, and interestingly named her specifically: "Recently there has been fake information about Huang Yanling, a graduate from our institute, claiming that she was patient zero in the novel coronavirus." Press accounts quote the institute as saying, "Huang was a graduate student at the institute until 2015, when she left the province and had not returned since. Huang was in good health and had not been diagnosed with disease, it added." None of her publicly available research papers are dated after 2015.



The web page for the Wuhan Institute of Virology's Lab of Diagnostic Microbiology does indeed still have "Huang Yanling" listed as a 2012 graduate student, and her picture and biography appear to have been recently removed — as have those of two other graduate students from 2013, Wang Mengyue and Wei Cuihua.

		
Hu Yuanxuan, 2011 PhD student	Li Heng, 2011 PhD student	Qiao Jinxuan, 2012 PhD student
		
Zhang Yun, 2011 Graduate Student	Wang Ming, 2012 Graduate Student	Huang Yanling, 2012 graduate student

Her name still has a hyperlink, [but the linked page is blank](#). The pages for Wang Mengyue and Wei Cuihua are blank as well.

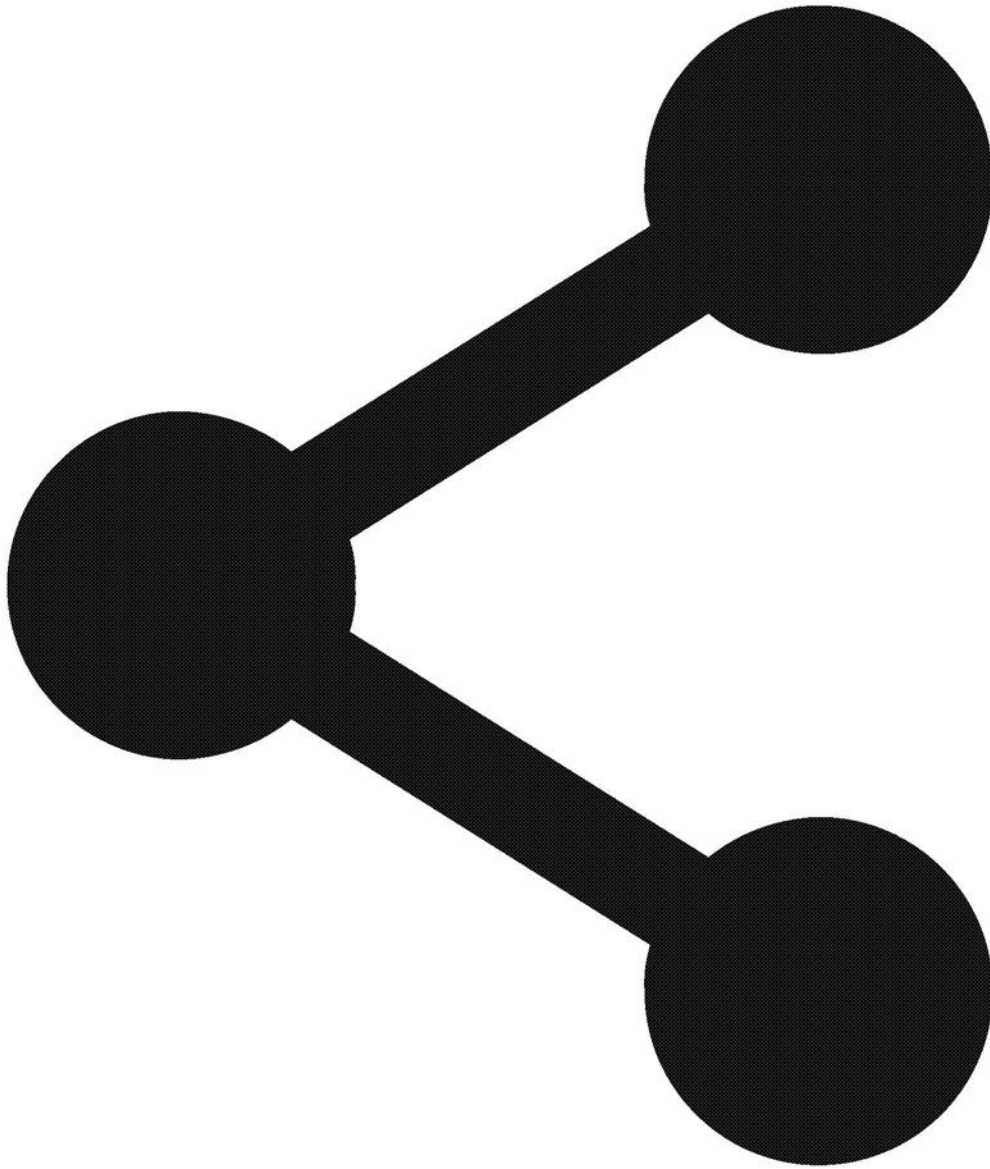


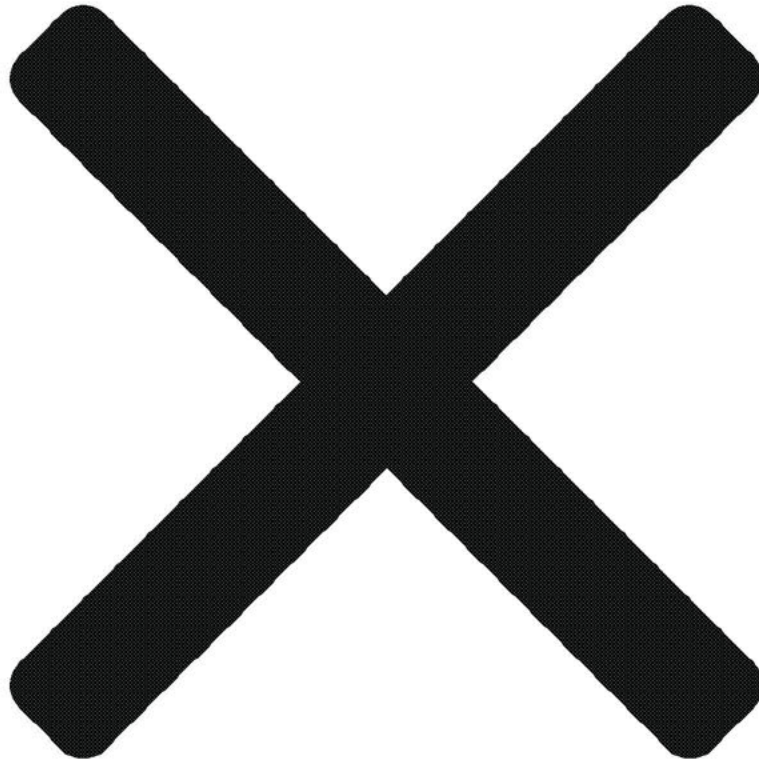
(For what it is worth, the *South China Morning Post* — a newspaper seen [as being generally pro-Beijing](#) — [reported on March 13](#) that “according to the

government data seen by the Post, a 55 year-old from Hubei province could have been the first person to have contracted Covid-19 on November 17.")

On February 17, Zhen Shuji, a Hong Kong correspondent from the French public-radio service Radio France Internationale, reported: "when a reporter from the Beijing News of the Mainland asked the institute for rumors about patient zero, the institute first denied that there was a researcher Huang Yanling, but after learning that the name of the person on the Internet did exist, acknowledged that the person had worked at the firm but has now left the office and is unaccounted for."

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<https://www.nationalreview.com/2020/04/coronavirus->

Tye says, "everyone on the Chinese internet is searching for [Huang Yanling] but most believe that her body was quickly cremated and the people working at the crematorium were perhaps infected as they were not given any information about the virus." (The U.S. Centers for Disease Control and

Prevention says that handling the body of someone who has died of coronavirus is safe — including embalming and cremation — as long as the standard safety protocols for handing a decedent are used. It's anyone's guess as to whether those safety protocols were sufficiently used in China before the outbreak's scope was known.)

As Tye observes, a public appearance by Huang Yanling would dispel a lot of the public rumors, and is the sort of thing the Chinese government would quickly arrange in normal circumstances — presuming that Huang Yanling was still alive. Several officials at the Wuhan Institute of Virology issued public statements that Huang was in good health and that no one at the institute has been infected with COVID-19. In any case, the mystery around Huang Yanling may be moot, but it does point to the lab covering up something about her.

China Global Television Network, a state-owned television broadcaster, illuminated another rumor while attempting to dispel it in a February 23 report entitled "Rumors Stop With the Wise":

On February 17, a Weibo user who claimed herself to be Chen Quanjiao, a researcher at the Wuhan Institute of Virology, reported to the public that the Director of the Institute was responsible for leaking the novel coronavirus. The Weibo post threw a bomb in the cyberspace and the public was shocked. Soon Chen herself stepped out and declared that she had never released any report information and expressed great indignation at such identity fraud on Weibo. It has been confirmed that that particular Weibo account had been shut down several times due to the spread of misinformation about COVID-19.

That Radio France Internationale report on February 17 also mentioned the next key part of the Tye's YouTube video. "Xiaobo Tao, a scholar from South China University of Technology, recently published a report that researchers at

Wuhan Virus Laboratory were splashed with bat blood and urine, and then quarantined for 14 days." HK01, another Hong Kong-based news site, [reported the same claim](#).

This doctor's name is spelled in English as both "Xiaobo Tao" and "Botao Xiao." From 2011 to 2013, Botao Xiao was a [postdoctoral research fellow at Harvard Medical School and Boston Children's Hospital](#), and his [biography is still on the web site of the South China University of Technology](#).

www2.scut.edu.cn/biology_en/2017/0814/c5951a169022/page.htm

Botao Xiao

time: 2017-08-14



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Education

Ph.D., Northwestern University, Evanston, IL, U.S.A, 2011

M.S., Chongqing University, Institute of Mechanics, Chinese Academy of Sciences, 2004

B.S., Chongqing University, 2000

Professional Experience

2017-Present, Professor, South China University of Technology

2013-2017, Professor, Huazhong University of Science and Technology

2011-2013, Postdoctoral Research Fellow, Harvard Medical School, Boston Children's Hospital

Research Description

The Xiao group study mainly in the fields of cellular and molecular biomechanics, single molecule biophysics and engineering. Current research areas are: protein-ligand interactions, DNA and RNA assembly, high throughput nanoscale measurements and manipulation, mathematical modeling and quantitative analysis. The experimental techniques include: magnetic tweezers, optical tweezers, biosensors, force probes, fluorescent microscopy, atomic force microscopy, and chromatin dynamics. An online resume is online <http://personal.scnu.edu.cn/botaoxiao/>

At some point in February, Botao Xiao posted a research paper onto ResearchGate.net, "[The Possible Origins of 2019-nCoV coronavirus](#)." He is listed as one author, along with Lei Xiao from Tian You Hospital, which is [affiliated with the Wuhan University of Science and Technology](#). The paper was removed a short time after it was posted, but archived images of its pages can be found [here](#) and [here](#).

The first conclusion of Botao Xiao's paper is that the bats suspected of carrying the virus are extremely unlikely to be found naturally in the city, and despite the stories of "bat soup," they conclude that bats were not sold at the market and were unlikely to be deliberately ingested.

The bats carrying CoV ZC45 were originally found in Yunnan or Zhejiang province, both of which were more than 900 kilometers away from the seafood market. Bats were normally found to live in caves and trees. But the seafood market is in a densely-populated district of Wuhan, a metropolitan [area] of ~15 million people. The probability was very low for the bats to fly to the market. According to municipal reports and the testimonies of 31 residents and 28 visitors, the bat was never a food source in the city, and no bat was traded in the market.

The U.S. Centers for Disease Control and Prevention and the World Health Organization could not confirm if bats were present at the market. Botao Xiao's paper theorizes that the coronavirus originated from bats being used for research at either one of two research laboratories in Wuhan.

We screened the area around the seafood market and identified two laboratories conducting research on bat coronavirus. Within ~ 280 meters from the market, there was the Wuhan Center for Disease Control & Prevention. WHCDC hosted animals in laboratories for research purpose, one of which was specialized in pathogens collection and identification. In one of their studies, 155 bats including *Rhinolophus affinis* were captured in Hubei province, and other 450 bats were captured in Zhejiang province. The expert in Collection was noted in the Author Contributions (JHT). Moreover, he was broadcasted for collecting viruses on nation-wide newspapers and websites in 2017 and 2019. He described that he was once by attacked by bats and the blood of a bat shot on his skin. He knew the extreme danger of the infection so he quarantined himself for 14 days.

In another accident, he quarantined himself again because bats peed on him.

Surgery was performed on the caged animals and the tissue samples were collected for DNA and RNA extraction and sequencing. The tissue samples and contaminated trashes were source of pathogens. They were only ~280 meters from the seafood market. The WHCDC was also adjacent to the Union Hospital (Figure 1, bottom) where the first group of doctors were infected during this epidemic. It is plausible that the virus leaked around and some of them contaminated the initial patients in this epidemic, though solid proofs are needed in future study.

The second laboratory was ~12 kilometers from the seafood market and belonged to Wuhan Institute of Virology, Chinese Academy of Sciences . . .

In summary, somebody was entangled with the evolution of 2019-nCoV coronavirus. In addition to origins of natural recombination and intermediate host, the killer coronavirus probably originated from a laboratory in Wuhan. Safety level may need to be reinforced in high risk biohazardous laboratories. Regulations may be taken to relocate these laboratories far away from city center and other densely populated places.

However, Xiao has told the *Wall Street Journal* that he has withdrawn his paper. "The speculation about the possible origins in the post was based on published papers and media, and was not supported by direct proofs," he said in a brief email on February 26.

The bat researcher that Xiao's report refers to is virologist Tian Junhua, who works at the Wuhan Centre for Disease Control. In 2004, the World Health Organization determined that an outbreak of the SARS virus had been caused by two separate leaks at the Chinese Institute of Virology in Beijing. The Chinese government said that the leaks were a result of "negligence" and the

responsible officials had been punished.

In 2017, the Chinese state-owned Shanghai Media Group made a seven-minute documentary about Tian Junhua, entitled "Youth in the Wild: Invisible Defender." Videographers followed Tian Junhua as he traveled deep into caves to collect bats. "Among all known creatures, the bats are rich with various viruses inside," he says in Chinese. "You can find most viruses responsible for human diseases, like rabies virus, SARS, and Ebola. Accordingly, the caves frequented by bats became our main battlefields." He emphasizes, "bats usually live in caves humans can hardly reach. Only in these places can we find the most ideal virus vector samples."

One of his last statements on the video is: "In the past ten-plus years, we have visited every corner of Hubei Province. We explored dozens of undeveloped caves and studied more than 300 types of virus vectors. But I do hope these virus samples will only be preserved for scientific research and will never be used in real life. Because humans need not only the vaccines, but also the protection from the nature."

The description of Tian Junhua's self-isolation came from a May 2017 report by Xinhua News Agency, repeated by the Chinese news site JQKNews.com:

The environment for collecting bat samples is extremely bad. There is a stench in the bat cave. Bats carry a large number of viruses in their bodies. If they are not careful, they are at risk of infection. But Tian Junhua is not afraid to go to the mountain with his wife to catch Batman.

Tian Junhua summed up the experience that the most bats can be caught by using the sky cannon and pulling the net. But in the process of operation, Tian Junhua forgot to take protective measures. Bat urine dripped on him like raindrops from the top. If he was infected, he could not find any medicine. It was written in the report.

The wings of bats carry sharp claws. When the big bats are caught by bat tools, they can easily spray blood. Several times bat blood was sprayed directly on Tians skin, but he didn't flinch at all. After returning home, Tian Junhua took the initiative to isolate for half a month. As long as the incubation period of 14 days does not occur, he will be lucky to escape, the report said.

Bat urine and blood can carry viruses. How likely is it that bat urine or blood got onto a researcher at either Wuhan Center for Disease Control & Prevention or the Wuhan Institute of Virology? Alternatively, what are the odds that some sort of medical waste or other material from the bats was not properly disposed of, and that was the initial transmission vector to a human being?

Virologists have been vehemently skeptical of the theory that COVID-19 was engineered or deliberately constructed in a laboratory; the director of the National Institutes of Health has written that recent genomic research "debunks such claims by providing scientific evidence that this novel coronavirus arose naturally." And none of the above is definitive proof that COVID-19 originated from a bat at either the Wuhan Center for Disease Control & Prevention or the Wuhan Institute of Virology. Definitive proof would require much broader access to information about what happened in those facilities in the time period before the epidemic in the city.

But it is a remarkable coincidence that the Wuhan Institute of Virology was researching Ebola and SARS-associated coronaviruses in bats before the pandemic outbreak, and that in the month when Wuhan doctors were treating the first patients of COVID-19, the institute announced in a hiring notice that "a large number of new bat and rodent new viruses have been discovered and identified." And the fact that the Chinese government spent six weeks insisting that COVID-19 could not be spread from person to person means that its denials about Wuhan laboratories cannot be accepted without

independent verification.



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The possible origins of 2019-nCoV coronavirus

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The 2019-nCoV coronavirus has caused an epidemic of 28,060 laboratory-confirmed infections in human including 564 deaths in China by February 6, 2020. Two descriptions of the virus published on Nature this week indicated that the genome sequences from patients were 96% or 89% identical to the Bat CoV ZC45 coronavirus originally found in *Rhinolophus affinis*^{1,2}. It was critical to study where the pathogen came from and how it passed onto human.

An article published on The Lancet reported that 41 people in Wuhan were found to have the acute respiratory syndrome and 27 of them had contact with Huanan Seafood Market³. The 2019-nCoV was found in 33 out of 585 samples collected in the market after the outbreak. The market was suspicious to be the origin of the epidemic, and was shut down according to the rule of quarantine the source during an epidemic.

The bats carrying CoV ZC45 were originally found in Yunnan or Zhejiang province, both of which were more than 900 kilometers away from the seafood market. Bats were normally found to live in caves and trees. But the seafood market is in a densely-populated district of Wuhan, a metropolitan of ~15 million people. The probability was very low for the bats to fly to the market. According to municipal reports and the testimonies of 31 residents and 28 visitors, the bat was never a food source in the city, and no bat was traded in the market. There was possible natural recombination or intermediate host of the coronavirus, yet little proof has been reported.

Was there any other possible pathway? We screened the area around the seafood market and identified two laboratories conducting research on bat coronavirus. Within ~280 meters from the market, there was the Wuhan Center for Disease Control & Prevention (WHCDC) (Figure 1, from Baidu and Google maps). WHCDC hosted animals in laboratories for research purpose, one of which was specialized in pathogens collection and identification⁴⁻⁶. In one of their studies, 155 bats including *Rhinolophus affinis* were captured in Hubei province, and other 450 bats were captured in Zhejiang province⁴. The expert in collection was noted in the Author Contributions (JHT). Moreover, he was broadcasted for collecting viruses on nation-wide newspapers and websites in 2017 and 2019^{7,8}. He described that he was once by attacked by bats and the blood of a bat shot on his skin. He knew the extreme danger of the infection so he quarantined himself for 14 days⁷. In another accident, he quarantined himself again because bats peed on him. He was once thrilled for capturing a bat carrying a live tick⁸.

Surgery was performed on the caged animals and the tissue samples were collected for DNA and RNA extraction and sequencing^{4,5}. The tissue samples and contaminated trashes were source of pathogens. They were only ~280 meters from the seafood market. The WHCDC was also adjacent to the Union Hospital (Figure 1, bottom) where the first group of doctors were infected during this epidemic. It is plausible that the virus leaked around and some of them contaminated the initial patients in this epidemic, though solid proofs are needed in future study.

The second laboratory was ~12 kilometers from the seafood market and belonged to Wuhan Institute of Virology, Chinese Academy of Sciences^{1,9,10}. This laboratory reported that the Chinese horseshoe bats were natural reservoirs for the severe acute respiratory syndrome coronavirus (SARS-CoV) which caused the 2002-3 pandemic⁹. The principle investigator participated in a project which generated a chimeric virus using

the SARS-CoV reverse genetics system, and reported the potential for human emergence¹⁰. A direct speculation was that SARS-CoV or its derivative might leak from the laboratory.

In summary, somebody was entangled with the evolution of 2019-nCoV coronavirus. In addition to origins of natural recombination and intermediate host, the killer coronavirus probably originated from a laboratory in Wuhan. Safety level may need to be reinforced in high risk biohazardous laboratories. Regulations may be taken to relocate these laboratories far away from city center and other densely populated places.

Contributors

BX designed the comment and performed literature search. All authors performed data acquisition and analysis, collected documents, draw the figure, and wrote the papers.

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Declaration of interests

All authors declare no competing interests.

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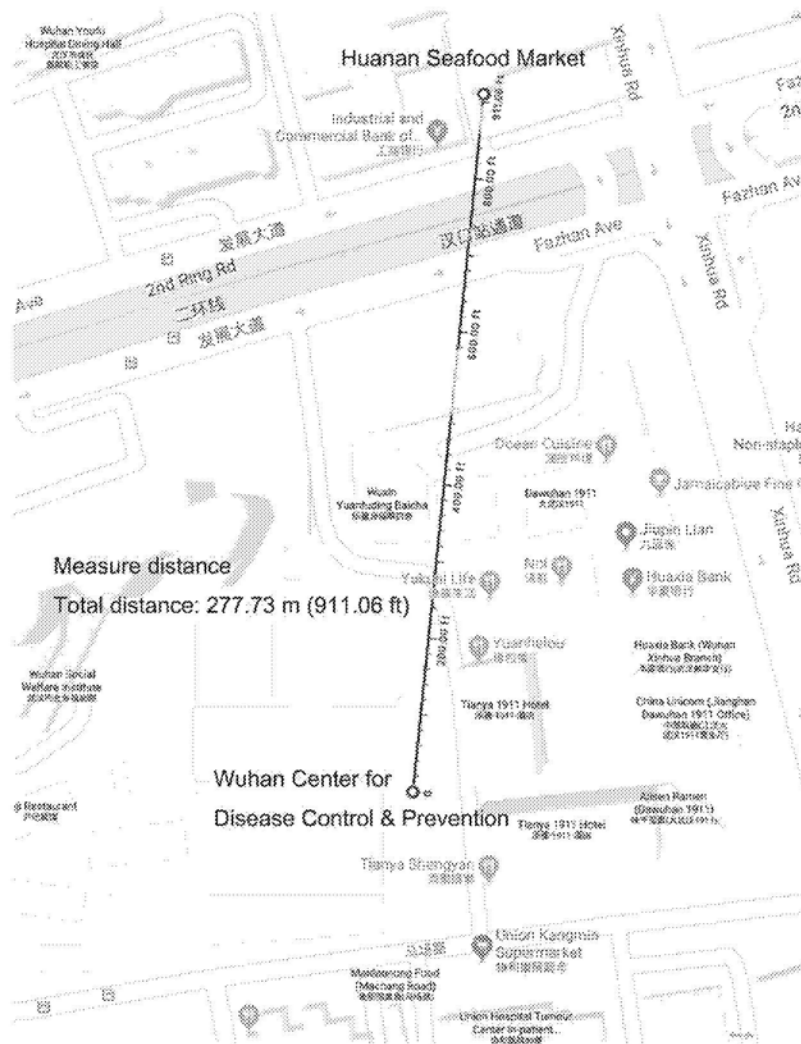


Figure 1. The Huanan Seafood Market is close to the WHCDC (from Baidu and Google maps).

Clinical features of patients infected with 2019 novel coronavirus in Wuhan, China



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Summary

Background A recent cluster of pneumonia cases in Wuhan, China, was caused by a novel betacoronavirus, the 2019 novel coronavirus (2019-nCoV). We report the epidemiological, clinical, laboratory, and radiological characteristics and treatment and clinical outcomes of these patients.

Methods All patients with suspected 2019-nCoV were admitted to a designated hospital in Wuhan. We prospectively collected and analysed data on patients with laboratory-confirmed 2019-nCoV infection by real-time RT-PCR and next-generation sequencing. Data were obtained with standardised data collection forms shared by WHO and the International Severe Acute Respiratory and Emerging Infection Consortium from electronic medical records. Researchers also directly communicated with patients or their families to ascertain epidemiological and symptom data. Outcomes were also compared between patients who had been admitted to the intensive care unit (ICU) and those who had not.

Findings By Jan 2, 2020, 41 admitted hospital patients had been identified as having laboratory-confirmed 2019-nCoV infection. Most of the infected patients were men (30 [73%] of 41); less than half had underlying diseases (13 [32%]), including diabetes (eight [20%]), hypertension (six [15%]), and cardiovascular disease (six [15%]). Median age was 49·0 years (IQR 41·0–58·0). 27 (66%) of 41 patients had been exposed to Huanan seafood market. One family cluster was found. Common symptoms at onset of illness were fever (40 [98%] of 41 patients), cough (31 [76%]), and myalgia or fatigue (18 [44%]); less common symptoms were sputum production (11 [28%] of 39), headache (three [8%] of 38), haemoptysis (two [5%] of 39), and diarrhoea (one [3%] of 38). Dyspnoea developed in 22 (55%) of 40 patients (median time from illness onset to dyspnoea 8·0 days [IQR 5·0–13·0]). 26 (63%) of 41 patients had lymphopenia. All 41 patients had pneumonia with abnormal findings on chest CT. Complications included acute respiratory distress syndrome (12 [29%]), RNAemia (six [15%]), acute cardiac injury (five [12%]) and secondary infection (four [10%]). 13 (32%) patients were admitted to an ICU and six (15%) died. Compared with non-ICU patients, ICU patients had higher plasma levels of IL2, IL7, IL10, GSCF, IP10, MCP1, MIP1A, and TNFα.

Interpretation The 2019-nCoV infection caused clusters of severe respiratory illness similar to severe acute respiratory syndrome coronavirus and was associated with ICU admission and high mortality. Major gaps in our knowledge of the origin, epidemiology, duration of human transmission, and clinical spectrum of disease need fulfilment by future studies.

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Introduction

Coronaviruses are enveloped non-segmented positive-sense RNA viruses belonging to the family Coronaviridae and the order Nidovirales and broadly distributed in humans and other mammals.¹ Although most human coronavirus infections are mild, the epidemics of the two betacoronaviruses, severe acute respiratory syndrome coronavirus (SARS-CoV)^{2–4} and Middle East respiratory syndrome coronavirus (MERS-CoV),^{5,6} have caused more than 10000 cumulative cases in the past two decades, with mortality rates of 10% for SARS-CoV and 37% for MERS-CoV.^{7,8} The coronaviruses already identified might only be the tip of the iceberg, with

potentially more novel and severe zoonotic events to be revealed.

In December, 2019, a series of pneumonia cases of unknown cause emerged in Wuhan, Hubei, China, with clinical presentations greatly resembling viral pneumonia.⁹ Deep sequencing analysis from lower respiratory tract samples indicated a novel coronavirus, which was named 2019 novel coronavirus (2019-nCoV). Thus far, more than 800 confirmed cases, including in health-care workers, have been identified in Wuhan, and several exported cases have been confirmed in other provinces in China, and in Thailand, Japan, South Korea, and the USA.^{10–13}

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Research in context

Evidence before this study

Human coronaviruses, including hCoV-229E, OC43, NL63, and HKU1, cause mild respiratory diseases. Fatal coronavirus infections that have emerged in the past two decades are severe acute respiratory syndrome coronavirus (SARS-CoV) and the Middle East respiratory syndrome coronavirus. We searched PubMed and the China National Knowledge Infrastructure database for articles published up to Jan 11, 2020, using the keywords "novel coronavirus", "2019 novel coronavirus", or "2019-nCoV". No published work about the human infection caused by the 2019 novel coronavirus (2019-nCoV) could be identified.

Added value of this study

We report the epidemiological, clinical, laboratory, and radiological characteristics, treatment, and clinical outcomes of 41 laboratory-confirmed cases infected with 2019-nCoV.

We aim to describe epidemiological, clinical, laboratory, and radiological characteristics, treatment, and outcomes of patients confirmed to have 2019-nCoV infection, and to compare the clinical features between intensive care unit (ICU) and non-ICU patients. We hope our study findings will inform the global community of the emergence of this novel coronavirus and its clinical features.

Methods

Patients

Following the pneumonia cases of unknown cause reported in Wuhan and considering the shared history of exposure to Huanan seafood market across the patients, an epidemiological alert was released by the local health authority on Dec 31, 2019, and the market was shut down on Jan 1, 2020. Meanwhile, 59 suspected cases with fever and dry cough were transferred to a designated hospital starting from Dec 31, 2019. An expert team of physicians, epidemiologists, virologists, and government officials was soon formed after the alert.

Since the cause was unknown at the onset of these emerging infections, the diagnosis of pneumonia of unknown cause in Wuhan was based on clinical characteristics, chest imaging, and the ruling out of common bacterial and viral pathogens that cause pneumonia. Suspected patients were isolated using airborne precautions in the designated hospital, Jin Yin-tan Hospital (Wuhan, China), and fit-tested N95 masks and airborne precautions for aerosol-generating procedures were taken. This study was approved by the National Health Commission of China and Ethics Commission of Jin Yin-tan Hospital (KY-2020-01.01). Written informed consent was waived by the Ethics Commission of the designated hospital for emerging infectious diseases.

27 (66%) of 41 patients had a history of direct exposure to the Huanan seafood market. The median age of patients was 49.0 years (IQR 41.0–58.0), and 13 (32%) patients had underlying disease. All patients had pneumonia. A third of patients were admitted to intensive care units, and six died. High concentrations of cytokines were recorded in plasma of critically ill patients infected with 2019-nCoV.

Implications of all the available evidence

2019-nCoV caused clusters of fatal pneumonia with clinical presentation greatly resembling SARS-CoV. Patients infected with 2019-nCoV might develop acute respiratory distress syndrome, have a high likelihood of admission to intensive care, and might die. The cytokine storm could be associated with disease severity. More efforts should be made to know the whole spectrum and pathophysiology of the new disease.

Procedures

Local centres for disease control and prevention collected respiratory, blood, and faeces specimens, then shipped them to designated authoritative laboratories to detect the pathogen (NHC Key Laboratory of Systems Biology of Pathogens and Christophe Merieux Laboratory, Beijing, China). A novel coronavirus, which was named 2019-nCoV, was isolated then from lower respiratory tract specimen and a diagnostic test for this virus was developed soon after that.¹⁴ Of 59 suspected cases, 41 patients were confirmed to be infected with 2019-nCoV. The presence of 2019-nCoV in respiratory specimens was detected by next-generation sequencing or real-time RT-PCR methods. The primers and probe target to envelope gene of CoV were used and the sequences were as follows: forward primer 5'-ACTTCTTTTCTTCTTTCGTGGT-3'; reverse primer 5'-GCAGCAGTACGCACACAATC-3'; and the probe 5'-CY5-CTAGTTACTAGCCATCCTTACTGC-3'-BHQ1. Conditions for the amplifications were 50°C for 15 min, 95°C for 3 min, followed by 45 cycles of 95°C for 15 s and 60°C for 30 s.

Initial investigations included a complete blood count, coagulation profile, and serum biochemical test (including renal and liver function, creatine kinase, lactate dehydrogenase, and electrolytes). Respiratory specimens, including nasal and pharyngeal swabs, bronchoalveolar lavage fluid, sputum, or bronchial aspirates were tested for common viruses, including influenza, avian influenza, respiratory syncytial virus, adenovirus, parainfluenza virus, SARS-CoV and MERS-CoV using real-time RT-PCR assays approved by the China Food and Drug Administration. Routine bacterial and fungal examinations were also performed.

Given the emergence of the 2019-nCoV pneumonia cases during the influenza season, antibiotics (orally and intravenously) and oseltamivir (orally 75 mg twice daily) were empirically administered. Corticosteroid therapy

(methylprednisolone 40–120 mg per day) was given as a combined regimen if severe community-acquired pneumonia was diagnosed by physicians at the designated hospital. Oxygen support (eg, nasal cannula and invasive mechanical ventilation) was administered to patients according to the severity of hypoxaemia. Repeated tests for 2019-nCoV were done in patients confirmed to have 2019-nCoV infection to show viral clearance before hospital discharge or discontinuation of isolation.

Data collection

We reviewed clinical charts, nursing records, laboratory findings, and chest x-rays for all patients with laboratory-confirmed 2019-nCoV infection who were reported by the local health authority. The admission data of these patients was from Dec 16, 2019, to Jan 2, 2020. Epidemiological, clinical, laboratory, and radiological characteristics and treatment and outcomes data were obtained with standardised data collection forms (modified case record form for severe acute respiratory infection clinical characterisation shared by WHO and the International Severe Acute Respiratory and Emerging Infection Consortium) from electronic medical records. Two researchers also independently reviewed the data collection forms to double check the data collected. To ascertain the epidemiological and symptom data, which were not available from electronic medical records, the researchers also directly communicated with patients or their families to ascertain epidemiological and symptom data.

Cytokine and chemokine measurement

To characterise the effect of coronavirus on the production of cytokines or chemokines in the acute phase of the illness, plasma cytokines and chemokines (IL1B, IL1RA, IL2, IL4, IL5, IL6, IL7, IL8 (also known as CXCL8), IL9, IL10, IL12p70, IL13, IL15, IL17A, Eotaxin (also known as CCL11), basic FGF2, GCSF (CSF3), GM-CSF (CSF2), IFN γ , IP10 (CXCL10), MCP1 (CCL2), MIP1A (CCL3), MIP1B (CCL4), PDGFB, RANTES (CCL5), TNF α , and VEGFA) were measured using Human Cytokine Standard 27-Plex Assays panel and the Bio-Plex 200 system (Bio-Rad, Hercules, CA, USA) for all patients according to the manufacturer's instructions. The plasma samples from four healthy adults were used as controls for cross-comparison. The median time from being transferred to a designated hospital to the blood sample collection was 4 days (IQR 2–5).

Detection of coronavirus in plasma

Each 80 μ L plasma sample from the patients and contacts was added into 240 μ L of Trizol LS (10296028; Thermo Fisher Scientific, Carlsbad, CA, USA) in the Biosafety Level 3 laboratory. Total RNA was extracted by Direct-zol RNA Miniprep kit (R2050; Zymo research, Irvine, CA, USA) according to the manufacturer's instructions and

50 μ L elution was obtained for each sample. 5 μ L RNA was used for real-time RT-PCR, which targeted the NP gene using AgPath-ID One-Step RT-PCR Reagent (AM1005; Thermo Fisher Scientific). The final reaction mix concentration of the primers was 500 nM and probe was 200 nM. Real-time RT-PCR was performed using the following conditions: 50°C for 15 min and 95°C for 3 min, 50 cycles of amplification at 95°C for 10 s and 60°C for 45 s. Since we did not perform tests for detecting infectious virus in blood, we avoided the term viraemia and used RNAemia instead. RNAemia was defined as a positive result for real-time RT-PCR in the plasma sample.

Definitions

Acute respiratory distress syndrome (ARDS) and shock were defined according to the interim guidance of WHO

For the International Severe Acute Respiratory and Emerging Infection Consortium-*WHO* case record form for severe acute respiratory infections see <https://isaic.tghn.org/protocols/severe-acute-respiratory-infection-data-tools/>

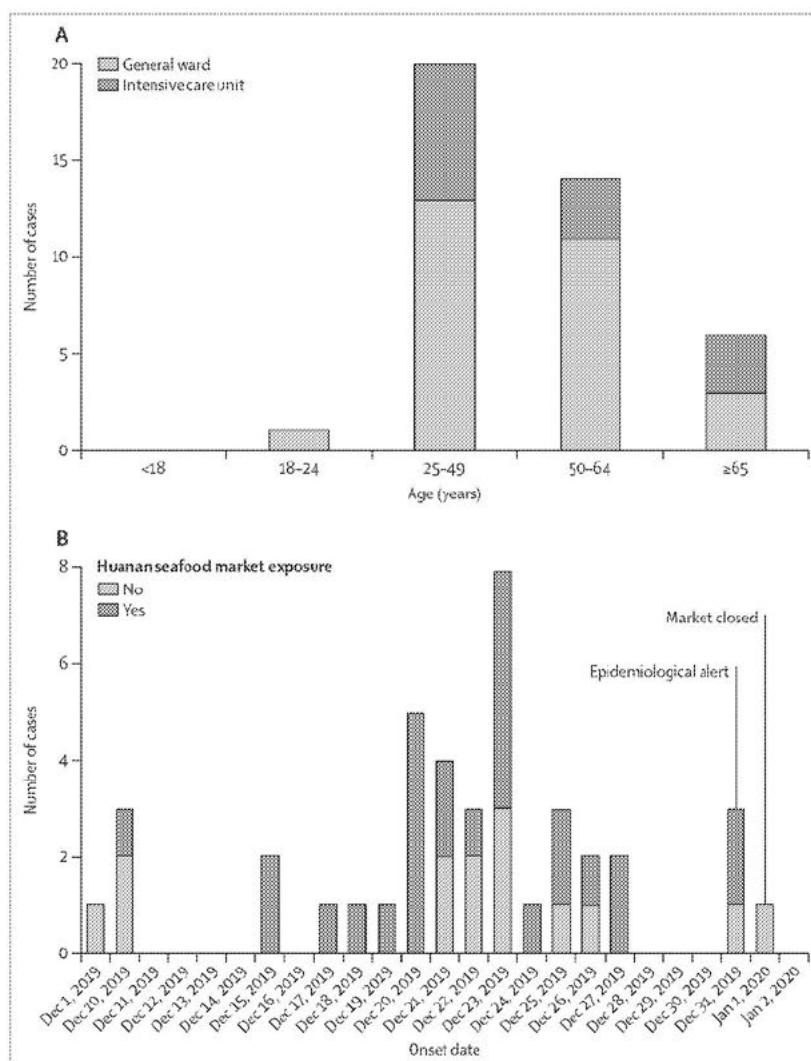


Figure 1: Date of illness onset and age distribution of patients with laboratory-confirmed 2019-nCoV infection

(A) Number of hospital admissions by age group. (B) Distribution of symptom onset date for laboratory-confirmed cases. The Wuhan local health authority issued an epidemiological alert on Dec 30, 2019, and closed the Huanan seafood market 2 days later.

	All patients (n=41)	ICU care (n=13)	No ICU care (n=28)	p value
Characteristics				
Age, years	49.0 (41.0–58.0)	49.0 (41.0–61.0)	49.0 (41.0–57.5)	0.60
Sex	..	..	..	0.24
Men	30 (73%)	11 (85%)	19 (68%)	..
Women	11 (27%)	2 (15%)	9 (32%)	..
Huanan seafood market exposure	27 (66%)	9 (69%)	18 (64%)	0.75
Current smoking	3 (7%)	0	3 (11%)	0.31
Any comorbidity	13 (32%)	5 (38%)	8 (29%)	0.53
Diabetes	8 (20%)	1 (8%)	7 (25%)	0.16
Hypertension	6 (15%)	2 (15%)	4 (14%)	0.93
Cardiovascular disease	6 (15%)	3 (23%)	3 (11%)	0.32
Chronic obstructive pulmonary disease	1 (2%)	1 (8%)	0	0.14
Malignancy	1 (2%)	0	1 (4%)	0.49
Chronic liver disease	1 (2%)	0	1 (4%)	0.68
Signs and symptoms				
Fever	40 (98%)	13 (100%)	27 (96%)	0.68
Highest temperature, °C	..	..	..	0.037
<37.3	1 (2%)	0	1 (4%)	..
37.3–38.0	8 (20%)	3 (23%)	5 (18%)	..
38.1–39.0	18 (44%)	7 (54%)	11 (39%)	..
>39.0	14 (34%)	3 (23%)	11 (39%)	..
Cough	31 (76%)	11 (85%)	20 (71%)	0.35
Myalgia or fatigue	18 (44%)	7 (54%)	11 (39%)	0.38
Sputum production	11/39 (28%)	5 (38%)	6/26 (23%)	0.32
Headache	3/38 (8%)	0	3/25 (12%)	0.10
Haemoptysis	2/39 (5%)	1 (8%)	1/26 (4%)	0.46
Diarrhoea	1/38 (3%)	0	1/25 (4%)	0.66
Dyspnoea	22/40 (55%)	12 (92%)	10/27 (37%)	0.0010
Days from illness onset to dyspnoea	8.0 (5.0–13.0)	8.0 (6.0–17.0)	6.5 (2.0–10.0)	0.22
Days from first admission to transfer	5.0 (1.0–8.0)	8.0 (5.0–14.0)	1.0 (1.0–5.5)	0.0023
Systolic pressure, mm Hg	125.0 (119.0–135.0)	145.0 (123.0–167.0)	122.0 (118.5–129.5)	0.018
Respiratory rate >24 breaths per min	12 (29%)	8 (62%)	4 (14%)	0.0023

Data are median (IQR), n (%), or n/N (%), where N is the total number of patients with available data. p values comparing ICU care and no ICU care are from χ^2 test, Fisher's exact test, or Mann-Whitney U test. 2019-nCoV=2019 novel coronavirus. ICU=intensive care unit.

Table 1: Demographics and baseline characteristics of patients infected with 2019-nCoV

for novel coronavirus.⁹ Hypoxaemia was defined as arterial oxygen tension (PaO₂) over inspiratory oxygen fraction (FIO₂) of less than 300 mm Hg.¹⁵ Acute kidney injury was identified and classified on the basis of the highest serum creatinine level or urine output criteria according to the kidney disease improving global outcomes classification.¹⁶ Secondary infection was diagnosed if the patients had clinical symptoms or signs of nosocomial pneumonia or bacteraemia, and was combined with a positive culture of a new pathogen from a lower respiratory tract specimen (including the sputum, transtracheal aspirates, or bronchoalveolar lavage fluid, or from blood samples taken \geq 48 h

after admission).¹⁷ Cardiac injury followed the definition used in our previous study in H7N9 patients.¹⁸ In brief, cardiac injury was diagnosed if serum levels of cardiac biomarkers (eg, troponin I) were above the 99th percentile upper reference limit, or new abnormalities were shown in electrocardiography and echocardiography.

Statistical analysis

Continuous variables were expressed as median (IQR) and compared with the Mann-Whitney U test; categorical variables were expressed as number (%) and compared by χ^2 test or Fisher's exact test between ICU care and no ICU care groups. Boxplots were drawn to describe plasma cytokine and chemokine concentrations.

A two-sided α of less than 0.05 was considered statistically significant. Statistical analyses were done using the SAS software, version 9.4, unless otherwise indicated.

Role of the funding source

The funder of the study had no role in study design, data collection, data analysis, data interpretation, or writing of the report. The corresponding authors had full access to all the data in the study and had final responsibility for the decision to submit for publication.

Results

By Jan 2, 2020, 41 admitted hospital patients were identified as laboratory-confirmed 2019-nCoV infection in Wuhan. 20 (49%) of the 2019-nCoV-infected patients were aged 25–49 years, and 14 (34%) were aged 50–64 years (figure 1A). The median age of the patients was 49.0 years (IQR 41.0–58.0; table 1). In our cohort of the first 41 patients as of Jan 2, no children or adolescents were infected. Of the 41 patients, 13 (32%) were admitted to the ICU because they required high-flow nasal cannula or higher-level oxygen support measures to correct hypoxaemia. Most of the infected patients were men (30 [73%]); less than half had underlying diseases (13 [32%]), including diabetes (eight [20%]), hypertension (six [15%]), and cardiovascular disease (six [15%]).

27 (66%) patients had direct exposure to Huanan seafood market (figure 1B). Market exposure was similar between the patients with ICU care (nine [69%]) and those with non-ICU care (18 [64%]). The symptom onset date of the first patient identified was Dec 1, 2019. None of his family members developed fever or any respiratory symptoms. No epidemiological link was found between the first patient and later cases. The first fatal case, who had continuous exposure to the market, was admitted to hospital because of a 7-day history of fever, cough, and dyspnoea. 5 days after illness onset, his wife, a 53-year-old woman who had no known history of exposure to the market, also presented with pneumonia and was hospitalised in the isolation ward.

The most common symptoms at onset of illness were fever (40 [98%] of 41 patients), cough (31 [76%]), and myalgia or fatigue (18 [44%]); less common symptoms

were sputum production (11 [28%] of 39), headache (three [8%] of 38), haemoptysis (two [5%] of 39), and diarrhoea (one [3%] of 38; table 1). More than half of patients (22 [55%] of 40) developed dyspnoea. The median duration from illness onset to dyspnoea was 8.0 days (IQR 5.0–13.0). The median time from onset of symptoms to first hospital admission was 7.0 days (4.0–8.0), to shortness of breath was 8.0 days (5.0–13.0), to ARDS was 9.0 days (8.0–14.0), to mechanical ventilation was 10.5 days (7.0–14.0), and to ICU admission was 10.5 days (8.0–17.0; figure 2).

The blood counts of patients on admission showed leucopenia (white blood cell count less than $4 \times 10^9/L$; ten [25%] of 40 patients) and lymphopenia (lymphocyte count $<1.0 \times 10^9/L$; 26 [63%] patients; table 2). Prothrombin time and D-dimer level on admission were higher in ICU patients (median prothrombin time 12.2 s [IQR 11.2–13.4]; median D-dimer level 2.4 mg/L [0.6–14.4]) than non-ICU patients (median prothrombin time 10.7 s [9.8–12.1], $p=0.012$; median D-dimer level 0.5 mg/L [0.3–0.8], $p=0.0042$). Levels of aspartate aminotransferase were increased in 15 (37%) of 41 patients, including eight (62%) of 13 ICU patients and seven (25%) of 28 non-ICU patients. Hypersensitive troponin I (hs-cTnI) was increased substantially in five patients, in whom the diagnosis of virus-related cardiac injury was made.

Most patients had normal serum levels of procalcitonin on admission (procalcitonin <0.1 ng/mL; 27 [69%] patients; table 2). Four ICU patients developed secondary infections. Three of the four patients with secondary infection had procalcitonin greater than 0.5 ng/mL (0.69 ng/mL, 1.46 ng/mL, and 6.48 ng/mL).

On admission, abnormalities in chest CT images were detected among all patients. Of the 41 patients, 40 (98%) had bilateral involvement (table 2). The typical findings of chest CT images of ICU patients on admission were bilateral multiple lobular and subsegmental areas of consolidation (figure 3A). The representative chest CT findings of non-ICU patients showed bilateral ground-glass opacity and subsegmental areas of consolidation (figure 3B). Later chest CT images showed bilateral ground-glass opacity, whereas the consolidation had been resolved (figure 3C).

Initial plasma IL1B, IL1RA, IL7, IL8, IL9, IL10, basic FGF, GCSF, GM-CSF, IFN γ , IP10, MCP1, MIP1A, MIP1B, PDGF, TNF α , and VEGF concentrations were higher in both ICU patients and non-ICU patients than in healthy adults (appendix pp 6–7). Plasma levels of IL5, IL12p70, IL15, Eotaxin, and RANTES were similar between healthy adults and patients infected with 2019-nCoV. Further comparison between ICU and non-ICU patients showed that plasma concentrations of IL2, IL7, IL10, GCSF, IP10, MCP1, MIP1A, and TNF α were higher in ICU patients than non-ICU patients.

All patients had pneumonia. Common complications included ARDS (12 [29%] of 41 patients), followed by

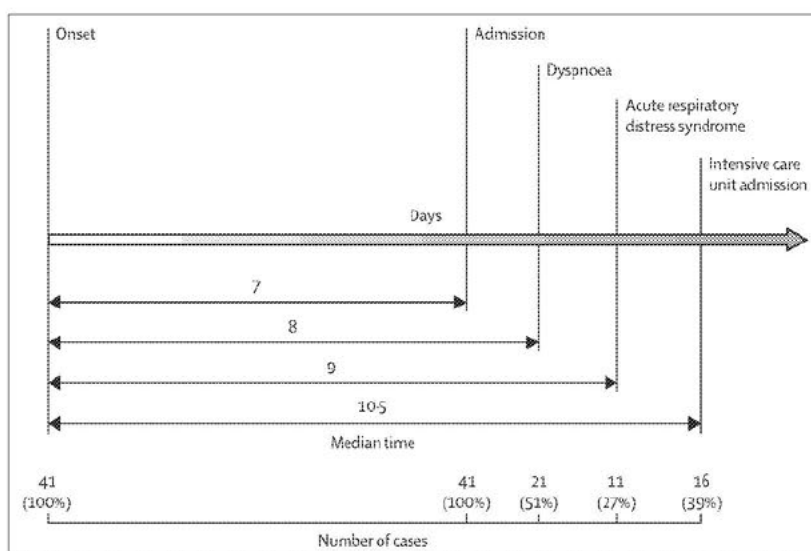


Figure 2: Timeline of 2019-nCoV cases after onset of illness

RNAemia (six [15%] patients), acute cardiac injury (five [12%] patients), and secondary infection (four [10%] patients; table 3). Invasive mechanical ventilation was required in four (10%) patients, with two of them (5%) had refractory hypoxaemia and received extracorporeal membrane oxygenation as salvage therapy. All patients were administered with empirical antibiotic treatment, and 38 (93%) patients received antiviral therapy (oseltamivir). Additionally, nine (22%) patients were given systematic corticosteroids. A comparison of clinical features between patients who received and did not receive systematic corticosteroids is in the appendix (pp 1–5).

As of Jan 22, 2020, 28 (68%) of 41 patients have been discharged and six (15%) patients have died. Fitness for discharge was based on abatement of fever for at least 10 days, with improvement of chest radiographic evidence and viral clearance in respiratory samples from upper respiratory tract.

Discussion

We report here a cohort of 41 patients with laboratory-confirmed 2019-nCoV infection. Patients had serious, sometimes fatal, pneumonia and were admitted to the designated hospital in Wuhan, China, by Jan 2, 2020. Clinical presentations greatly resemble SARS-CoV. Patients with severe illness developed ARDS and required ICU admission and oxygen therapy. The time between hospital admission and ARDS was as short as 2 days. At this stage, the mortality rate is high for 2019-nCoV, because six (15%) of 41 patients in this cohort died.

The number of deaths is rising quickly. As of Jan 24, 2020, 835 laboratory-confirmed 2019-nCoV infections were reported in China, with 25 fatal cases. Reports have been released of exported cases in many provinces in China, and in other countries;

See Online for appendix

	All patients (n=41)	ICU care (n=13)	No ICU care (n=28)	p value
White blood cell count, $\times 10^9$ per L	6.2 (4.1–10.5)	11.3 (5.8–12.1)	5.7 (3.1–7.6)	0.011
<4	10/40 (25%)	1/13 (8%)	9/27 (33%)	0.041
4–10	18/40 (45%)	5/13 (38%)	13/27 (48%)	..
>10	12/40 (30%)	7/13 (54%)	5/27 (19%)	..
Neutrophil count, $\times 10^9$ per L	5.0 (3.3–8.9)	10.6 (5.0–11.8)	4.4 (2.0–6.1)	0.00069
Lymphocyte count, $\times 10^9$ per L	0.8 (0.6–1.1)	0.4 (0.2–0.8)	1.0 (0.7–1.1)	0.0041
<1.0	26/41 (63%)	11/13 (85%)	15/28 (54%)	0.045
≥ 1.0	15/41 (37%)	2/13 (15%)	13/28 (46%)	..
Haemoglobin, g/L	126.0 (118.0–140.0)	122.0 (111.0–128.0)	130.5 (120.0–140.0)	0.20
Platelet count, $\times 10^9$ per L	164.5 (131.5–263.0)	196.0 (165.0–263.0)	149.0 (131.0–263.0)	0.45
<100	2/40 (5%)	1/13 (8%)	1/27 (4%)	0.45
≥ 100	38/40 (95%)	12/13 (92%)	26/27 (96%)	..
Prothrombin time, s	11.1 (10.1–12.4)	12.2 (11.2–13.4)	10.7 (9.8–12.1)	0.012
Activated partial thromboplastin time, s	27.0 (24.2–34.1)	26.2 (22.5–33.9)	27.7 (24.8–34.1)	0.57
D-dimer, mg/L	0.5 (0.3–1.3)	2.4 (0.6–14.4)	0.5 (0.3–0.8)	0.0042
Albumin, g/L	31.4 (28.9–36.0)	27.9 (26.3–30.9)	34.7 (30.2–36.5)	0.00066
Alanine aminotransferase, U/L	32.0 (21.0–50.0)	49.0 (29.0–115.0)	27.0 (19.5–40.0)	0.038
Aspartate aminotransferase, U/L	34.0 (26.0–48.0)	44.0 (30.0–70.0)	34.0 (24.0–40.5)	0.10
≤ 40	26/41 (63%)	5/13 (38%)	21/28 (75%)	0.025
>40	15/41 (37%)	8/13 (62%)	7/28 (25%)	..
Total bilirubin, mmol/L	11.7 (9.5–13.9)	14.0 (11.9–32.9)	10.8 (9.4–12.3)	0.011
Potassium, mmol/L	4.2 (3.8–4.8)	4.6 (4.0–5.0)	4.1 (3.8–4.6)	0.27
Sodium, mmol/L	139.0 (137.0–140.0)	138.0 (137.0–139.0)	139.0 (137.5–140.5)	0.26
Creatinine, $\mu\text{mol/L}$	74.2 (57.5–85.7)	79.0 (53.1–92.7)	73.3 (57.5–84.7)	0.84
≤ 133	37/41 (90%)	11/13 (85%)	26/28 (93%)	0.42
>133	4/41 (10%)	2/13 (15%)	2/28 (7%)	..
Creatine kinase, U/L	132.5 (62.0–219.0)	132.0 (82.0–493.0)	133.0 (61.0–189.0)	0.31
≤ 185	27/40 (68%)	7/13 (54%)	20/27 (74%)	0.21
>185	13/40 (33%)	6/13 (46%)	7/27 (26%)	..
Lactate dehydrogenase, U/L	286.0 (242.0–408.0)	400.0 (323.0–578.0)	281.0 (233.0–357.0)	0.0044
≤ 245	11/40 (28%)	1/13 (8%)	10/27 (37%)	0.036
>245	29/40 (73%)	12/13 (92%)	17/27 (63%)	..
Hypersensitive troponin I, pg/mL	3.4 (1.1–9.1)	3.3 (3.0–163.0)	3.5 (0.7–5.4)	0.075
>28 (99th percentile)	5/41 (12%)	4/13 (31%)	1/28 (4%)	0.017
Procalcitonin, ng/mL	0.1 (0.1–0.1)	0.1 (0.1–0.4)	0.1 (0.1–0.1)	0.031
<0.1	27/39 (69%)	6/12 (50%)	21/27 (78%)	0.029
≥ 0.1 to <0.25	7/39 (18%)	3/12 (25%)	4/27 (15%)	..
≥ 0.25 to <0.5	2/39 (5%)	0/12	2/27 (7%)	..
≥ 0.5	3/39 (8%)	3/12 (25%)*	0/27	..
Bilateral involvement of chest radiographs	40/41 (98%)	13/13 (100%)	27/28 (96%)	0.68
Cycle threshold of respiratory tract	32.2 (31.0–34.5)	31.1 (30.0–33.5)	32.2 (31.1–34.7)	0.39

Data are median (IQR) or n/N (%), where N is the total number of patients with available data. p values comparing ICU care and no ICU care are from χ^2 , Fisher's exact test, or Mann-Whitney U test. 2019-nCoV=2019 novel coronavirus. ICU=intensive care unit. *Complicated typical secondary infection during the first hospitalisation.

Table 2: Laboratory findings of patients infected with 2019-nCoV on admission to hospital

some health-care workers have also been infected in Wuhan. Taken together, evidence so far indicates human transmission for 2019-nCoV. We are concerned that 2019-nCoV could have acquired the ability for efficient human transmission.¹⁹ Airborne precautions, such as a fit-tested N95 respirator, and other personal protective equipment are strongly recommended. To

prevent further spread of the disease in health-care settings that are caring for patients infected with 2019-nCoV, onset of fever and respiratory symptoms should be closely monitored among health-care workers. Testing of respiratory specimens should be done immediately once a diagnosis is suspected. Serum antibodies should be tested among health-care workers

before and after their exposure to 2019-nCoV for identification of asymptomatic infections.

Similarities of clinical features between 2019-nCoV and previous betacoronavirus infections have been noted. In this cohort, most patients presented with fever, dry cough, dyspnoea, and bilateral ground-glass opacities on chest CT scans. These features of 2019-nCoV infection bear some resemblance to SARS-CoV and MERS-CoV infections.^{20,21} However, few patients with 2019-nCoV infection had prominent upper respiratory tract signs and symptoms (eg, rhinorrhoea, sneezing, or sore throat), indicating that the target cells might be located in the lower airway. Furthermore, 2019-nCoV patients rarely developed intestinal signs and symptoms (eg, diarrhoea), whereas about 20–25% of patients with MERS-CoV or SARS-CoV infection had diarrhoea.²¹ Faecal and urine samples should be tested to exclude a potential alternative route of transmission that is unknown at this stage.

The pathophysiology of unusually high pathogenicity for SARS-CoV or MERS-CoV has not been completely understood. Early studies have shown that increased amounts of proinflammatory cytokines in serum (eg, IL1B, IL6, IL12, IFN γ , IP10, and MCP1) were associated with pulmonary inflammation and extensive lung damage in SARS patients.²² MERS-CoV infection was also reported to induce increased concentrations of proinflammatory cytokines (IFN γ , TNF α , IL15, and IL17).²¹ We noted that patients infected with 2019-nCoV also had high amounts of IL1B, IFN γ , IP10, and MCP1, probably leading to activated T-helper-1 (Th1) cell responses. Moreover, patients requiring ICU admission had higher concentrations of GCSF, IP10, MCP1, MIP1A, and TNF α than did those not requiring ICU admission, suggesting that the cytokine storm was associated with disease severity. However, 2019-nCoV infection also initiated increased secretion of T-helper-2 (Th2) cytokines (eg, IL4 and IL10) that suppress inflammation, which differs from SARS-CoV infection.²² Further studies are necessary to characterise the Th1 and Th2 responses in 2019-nCoV infection and to elucidate the pathogenesis. Autopsy or biopsy studies would be the key to understand the disease.

In view of the high amount of cytokines induced by SARS-CoV,^{22,24} MERS-CoV,^{25,26} and 2019-nCoV infections, corticosteroids were used frequently for treatment of patients with severe illness, for possible benefit by reducing inflammatory-induced lung injury. However, current evidence in patients with SARS and MERS

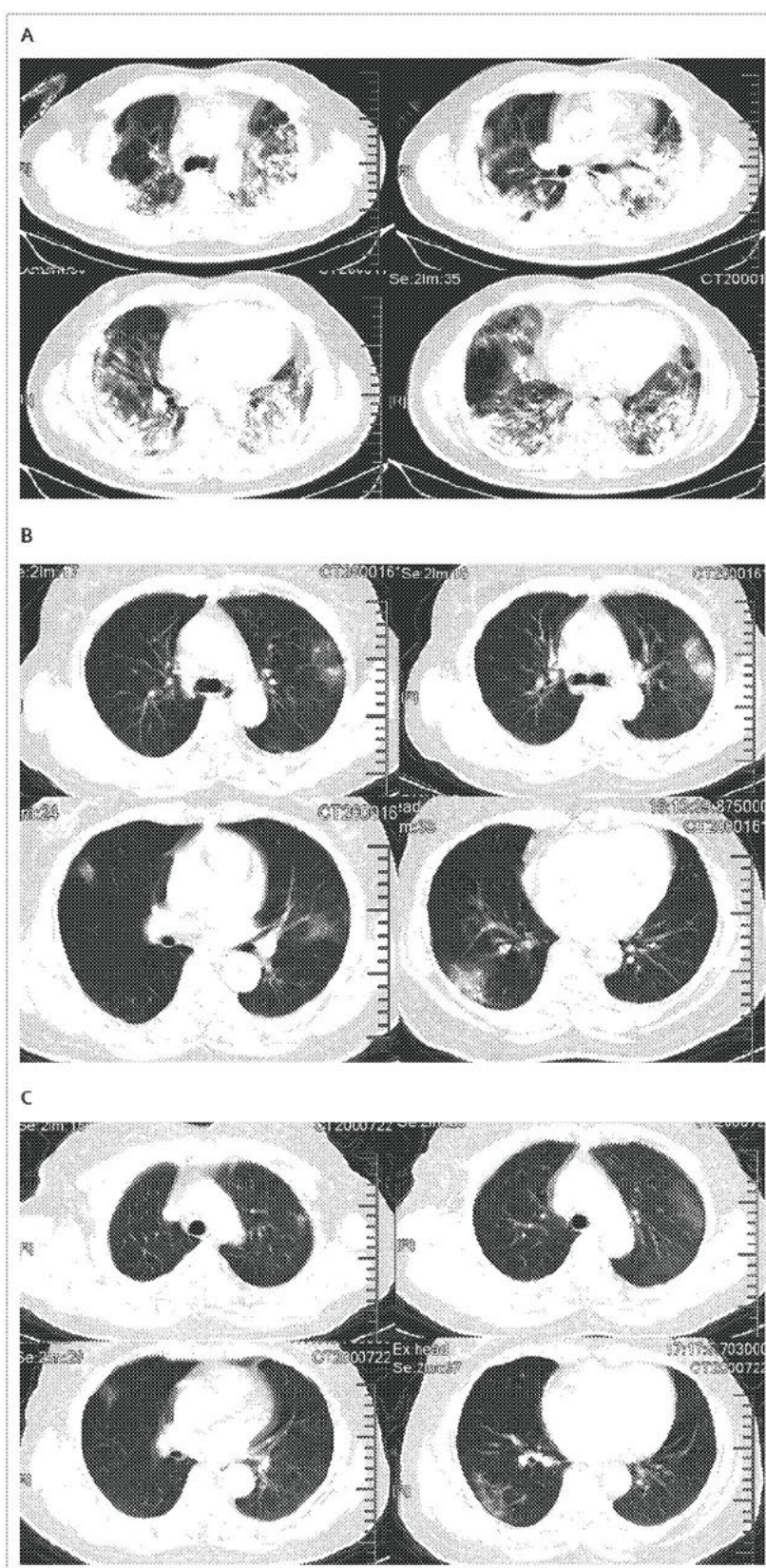


Figure 3: Chest CT images

(A) Transverse chest CT images from a 40-year-old man showing bilateral multiple lobular and subsegmental areas of consolidation on day 15 after symptom onset. Transverse chest CT images from a 53-year-old woman showing bilateral ground-glass opacity and subsegmental areas of consolidation on day 8 after symptom onset (B), and bilateral ground-glass opacity on day 12 after symptom onset (C).

	All patients (n=41)	ICU care (n=13)	No ICU care (n=28)	p value
Duration from illness onset to first admission	7.0 (4.0–8.0)	7.0 (4.0–8.0)	7.0 (4.0–8.5)	0.87
Complications				
Acute respiratory distress syndrome	12 (29%)	11 (85%)	1 (4%)	<0.0001
RNAemia	6 (15%)	2 (15%)	4 (14%)	0.93
Cycle threshold of RNAemia	35.1 (34.7–35.1)	35.1 (35.1–35.1)	34.8 (34.1–35.4)	0.35
Acute cardiac injury*	5 (12%)	4 (31%)	1 (4%)	0.017
Acute kidney injury	3 (7%)	3 (23%)	0	0.027
Secondary infection	4 (10%)	4 (31%)	0	0.0014
Shock	3 (7%)	3 (23%)	0	0.027
Treatment				
Antiviral therapy	38 (93%)	12 (92%)	26 (93%)	0.46
Antibiotic therapy	41 (100%)	13 (100%)	28 (100%)	NA
Use of corticosteroid	9 (22%)	6 (46%)	3 (11%)	0.013
Continuous renal replacement therapy	3 (7%)	3 (23%)	0	0.027
Oxygen support	..	..	..	<0.0001
Nasal cannula	27 (66%)	1 (8%)	26 (93%)	..
Non-invasive ventilation or high-flow nasal cannula	10 (24%)	8 (62%)	2 (7%)	..
Invasive mechanical ventilation	2 (5%)	2 (15%)	0	..
Invasive mechanical ventilation and ECMO	2 (5%)	2 (15%)	0	..
Prognosis				
Hospitalisation	7 (17%)	1 (8%)	6 (21%)	0.014
Discharge	28 (68%)	7 (54%)	21 (75%)	..
Death	6 (15%)	5 (38%)	1 (4%)	..

Data are median (IQR) or n (%). p values are comparing ICU care and no ICU care. 2019-nCoV=2019 novel coronavirus. ICU=intensive care unit. NA=not applicable. ECMO=extracorporeal membrane oxygenation. *Defined as blood levels of hypersensitive troponin I above the 99th percentile upper reference limit (>28 pg/mL) or new abnormalities shown on electrocardiography and echocardiography.

Table 3: Treatments and outcomes of patients infected with 2019-nCoV

suggests that receiving corticosteroids did not have an effect on mortality, but rather delayed viral clearance.^{27–29} Therefore, corticosteroids should not be routinely given systemically, according to WHO interim guidance.³⁰ Among our cohort of 41 laboratory-confirmed patients with 2019-nCoV infection, corticosteroids were given to very few non-ICU cases, and low-to-moderate dose of corticosteroids were given to less than half of severely ill patients with ARDS. Further evidence is urgently needed to assess whether systematic corticosteroid treatment is beneficial or harmful for patients infected with 2019-nCoV.

No antiviral treatment for coronavirus infection has been proven to be effective. In a historical control study,³¹ the combination of lopinavir and ritonavir among SARS-CoV patients was associated with substantial clinical benefit (fewer adverse clinical outcomes). Arabi and colleagues initiated a placebo-controlled trial of interferon beta-1b, lopinavir, and ritonavir among patients with MERS infection in Saudi Arabia.³² Preclinical evidence showed

the potent efficacy of remdesivir (a broad-spectrum antiviral nucleotide prodrug) to treat MERS-CoV and SARS-CoV infections.^{33,34} As 2019-nCoV is an emerging virus, an effective treatment has not been developed for disease resulting from this virus. Since the combination of lopinavir and ritonavir was already available in the designated hospital, a randomised controlled trial has been initiated quickly to assess the efficacy and safety of combined use of lopinavir and ritonavir in patients hospitalised with 2019-nCoV infection.

Our study has some limitations. First, for most of the 41 patients, the diagnosis was confirmed with lower respiratory tract specimens and no paired nasopharyngeal swabs were obtained to investigate the difference in the viral RNA detection rate between upper and lower respiratory tract specimens. Serological detection was not done to look for 2019-nCoV antibody rises in 18 patients with undetectable viral RNA. Second, with the limited number of cases, it is difficult to assess host risk factors for disease severity and mortality with multivariable-adjusted methods. This is a modest-sized case series of patients admitted to hospital; collection of standardised data for a larger cohort would help to further define the clinical presentation, natural history, and risk factors. Further studies in outpatient, primary care, or community settings are needed to get a full picture of the spectrum of clinical severity. At the same time, finding of statistical tests and p values should be interpreted with caution, and non-significant p values do not necessarily rule out difference between ICU and non-ICU patients. Third, since the causative pathogen has just been identified, kinetics of viral load and antibody titres were not available. Finally, the potential exposure bias in our study might account for why no paediatric or adolescent patients were reported in this cohort. More effort should be made to answer these questions in future studies.

Both SARS-CoV and MERS-CoV were believed to originate in bats, and these infections were transmitted directly to humans from market civets and dromedary camels, respectively.³⁵ Extensive research on SARS-CoV and MERS-CoV has driven the discovery of many SARS-like and MERS-like coronaviruses in bats. In 2013, Ge and colleagues³⁶ reported the whole genome sequence of a SARS-like coronavirus in bats with that ability to use human ACE2 as a receptor, thus having replication potentials in human cells.³⁷ 2019-nCoV still needs to be studied deeply in case it becomes a global health threat. Reliable quick pathogen tests and feasible differential diagnosis based on clinical description are crucial for clinicians in their first contact with suspected patients. Because of the pandemic potential of 2019-nCoV, careful surveillance is essential to monitor its future host adaption, viral evolution, infectivity, transmissibility, and pathogenicity.

Contributors

BC and JW had the idea for and designed the study and had full access to all data in the study and take responsibility for the integrity of the

data and the accuracy of the data analysis. YW, GF, XG, JX, HL, and BC contributed to writing of the report. BC contributed to critical revision of the report. YW, GF, XG, JX, and HL contributed to the statistical analysis. All authors contributed to data acquisition, data analysis, or data interpretation, and reviewed and approved the final version.

Declaration of interests

All authors declare no competing interests.

Data sharing

The data that support the findings of this study are available from the corresponding author on reasonable request. Participant data without names and identifiers will be made available after approval from the corresponding author and National Health Commission. After publication of study findings, the data will be available for others to request. The research team will provide an email address for communication once the data are approved to be shared with others. The proposal with detailed description of study objectives and statistical analysis plan will be needed for evaluation of the reasonability to request for our data. The corresponding author and National Health Commission will make a decision based on these materials. Additional materials may also be required during the process.

Acknowledgments

This work is funded by the Special Project for Emergency of the Ministry of Science and Technology (2020YFC0841300) Chinese Academy of Medical Sciences (CAMS) Innovation Fund for Medical Sciences (CIFMS 2018-12M-1-003), a National Science Grant for Distinguished Young Scholars (81425001/H0104), the National Key Research and Development Program of China (2018YFC1200102), The Beijing Science and Technology Project (Z19110700660000), CAMS Innovation Fund for Medical Sciences (2016-12M-1-014), and National Mega-projects for Infectious Diseases in China (2017ZX10103004 and 2018ZX10305409). We acknowledge all health-care workers involved in the diagnosis and treatment of patients in Wuhan; we thank the Chinese National Health Commission for coordinating data collection for patients with 2019-nCoV infection; we thank WHO and the International Severe Acute Respiratory and Emerging Infections Consortium (ISARIC) for sharing data collection templates publicly on the website; and we thank Prof Chen Wang and Prof George F Gao for guidance in study design and interpretation of results.

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DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

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

24 April 2020

Drs. Aleksei Chmura and Peter Daszak
EcoHealth Alliance, Inc.
460 W 34th St
Suite 1701
New York, NY 10001

Re: Termination of NIH Grant R01 AI 110964

Dear Drs. Chmura and Daszak:

I am writing to notify you that the National Institute of Allergy and Infectious Diseases (NIAID), an Institute within the National Institutes of Health (NIH), under the Department of Health and Human Services (HHS) has elected to terminate the project *Understanding the Risk of Bat Coronavirus Emergence*, funded under grant R01 AI110964, for convenience. This grant project was issued under the authorization of Sections 301 and 405 of the Public Health Service Act as amended (42 USC 241 and 284). This grant was funded as a discretionary grant as outlined in the NIH Grants Policy Statement, which states that the decision not to award a grant, or to award a grant at a particular funding level, is at the discretion of the agency, in accordance with NIH's dual review system.

At this time, NIH does not believe that the current project outcomes align with the program goals and agency priorities. NIAID has determined there are no animal and human ethical considerations, as this project is not a clinical trial, but rather an observational study.

As a result of this termination, a total of \$369,819.56 will be remitted to NIAID and additional drawdowns will not be supported. The remaining funds have been restricted in the HHS Payment Management System, effective immediately.

Please let me know if you have any questions concerning the information in this letter.

Sincerely,

Lauer, Michael (NIH/OD) [E]

Digitally signed by Lauer, Michael (NIH/OD) [E]
Date: 2020.04.24 16:41:16 -04'00'

Michael S Lauer, MD
NIH Deputy Director for Extramural Research
Email: (b) (6)

cc: Dr. Erik Stemmy
Ms. Emily Linde



Date: April 19, 2020

From: Michael S Lauer, MD
NIH Deputy Director for Extramural Research

Lauer, Michael
(NIH/OD) [E]
Digitally signed by Lauer,
Michael (NIH/OD) [E]
Date: 2020.04.19 10:47:40
-04'00'

To: Kevin Olival, PhD
Vice-President for Research
EcoHealth Alliance

(b) (6)

Naomi Schrag, JD
Vice-President for Research Compliance, Training, and Policy
Columbia University

(b) (6)

Subject: Project Number 2R01AI110964-06

Dear Dr. Olival and Ms. Schrag:

EcoHealth Alliance, Inc. is the recipient, as grantee, of an NIH grant entitled "Understanding the Risk of Bat Coronavirus Emergence." It is our understanding that one of the sub-recipients of the grant funds is the Wuhan Institute of Virology ("WIV"). It is our understanding that WIV studies the interaction between corona viruses and bats. The scientific community believes that the coronavirus causing COVID-19 jumped from bats to humans likely in Wuhan where the COVID-19 pandemic began. There are now allegations that the current crisis was precipitated by the release from WIV of the coronavirus responsible for COVID-19. Given these concerns, we are pursuing suspension of WIV from participation in Federal programs.

While we review these allegations during the period of suspension, you are instructed to cease providing any funds from the above noted grant to the WIV. This temporary action is authorized by 45 C.F.R. § 75.371(d) ("Initiate suspension or debarment proceedings as authorized under 2 C.F.R. part 180"). The incorporated OMB provision provides that the funding agency may, through suspension, immediately and temporarily exclude from Federal programs persons who are not presently responsible where "immediate action is necessary to protect the public interest." 2 C.F.R. § 180.700(c). It is in the public interest that NIH ensure that a sub-recipient has taken all appropriate precautions to prevent the release of pathogens that it is studying. This suspension of the sub-recipient does not affect the remainder of your grant assuming that no grant funds are provided to WIV following receipt of this email during the period of suspension.

From: Lauer, Michael (NIH/OD) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=90FE9CAE30C64CFBB67ABD568E882796-LAUERM]
Sent: 5/5/2020 12:12:57 PM
To: Black, Jodi (NIH/OD) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=782921b9f08249b59a582e93f6963f5f-blackj]
CC: Lauer, Michael (NIH/OD) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=90fe9cae30c64cfbb67abd568e882796-lauerm]
Subject: FW: Jodi/Michelle/Mike 1:1:1
Attachments: NIH New Generic SSA final.docx; Project Tracker Status Update; FW: WIV; FW: DPI OI2 Request Process Information

Hi Jodi – I think I'll miss this one, but a few items:

[REDACTED] (b) (5)

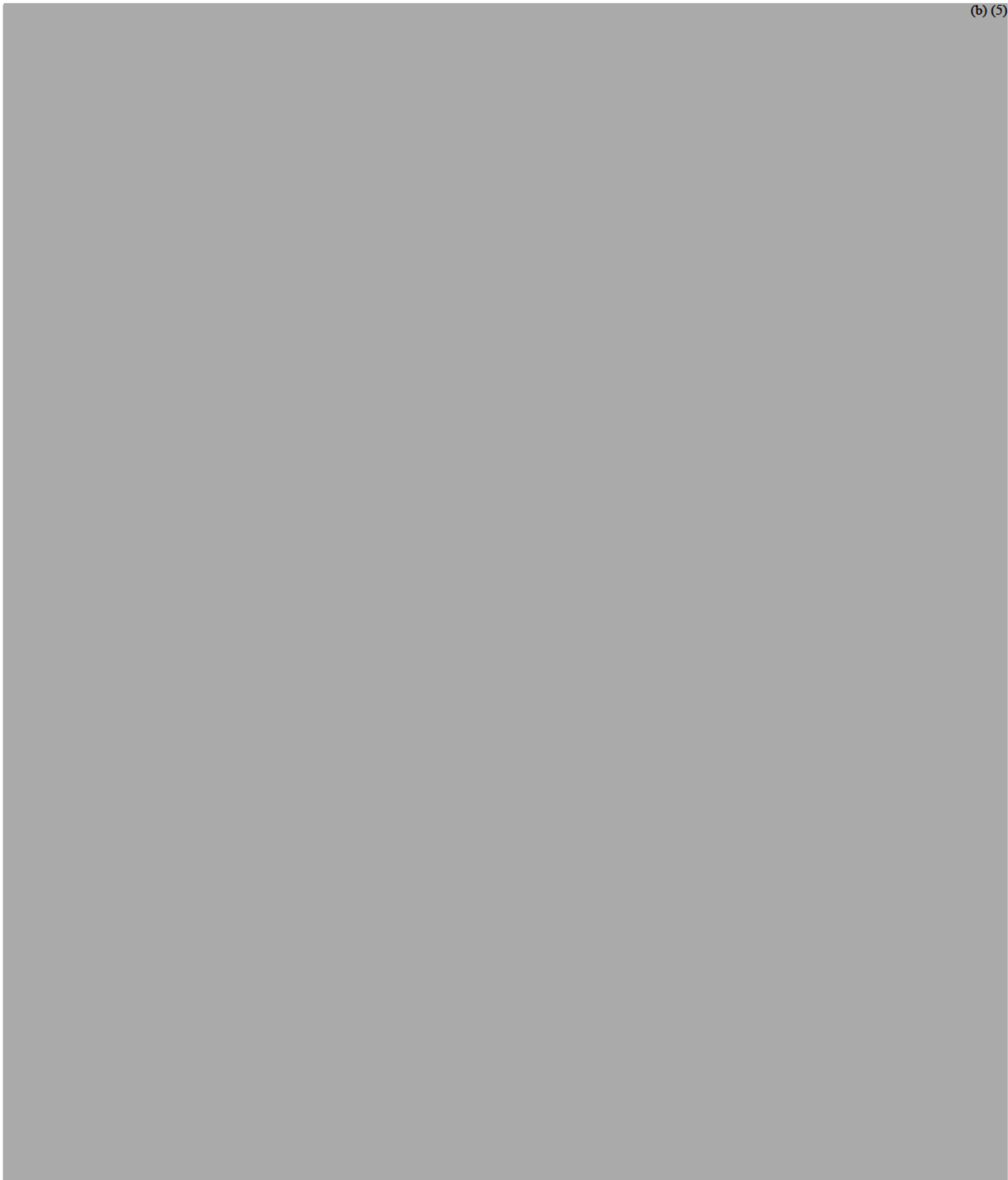
Many thanks

Best, Mike

From: "Bulls, Michelle G. (NIH/OD) [E]" [REDACTED] (b) (6)
Date: Monday, May 4, 2020 at 5:06 PM
To: "Black, Jodi (NIH/OD) [E]" [REDACTED] (b) (6)
Cc: "Lauer, Michael (NIH/OD) [E]" [REDACTED] (b) (6), "Bulls, Michelle G. (NIH/OD) [E]" [REDACTED] (b) (6)
Subject: Jodi/Michelle/Mike 1:1:1

Agenda
5/5/20
Jodi/Michelle

[REDACTED] (b) (5)



Supporting Statement A for

Generic Clearance for NIH Citizen Science and Crowdsourcing Projects (NIH)

OMB# 0925-0766, exp., date 04/30/2023

Date: March 4, 2020

Check off which applies:

- ☒ New
- ☐ Revision
- ☐ Reinstatement with Change
- ☐ Reinstatement without Change
- ☐ Extension
- ☐ Emergency
- ☐ Existing w/o OMB approval

Federal Government Employee Information:

Name: Mikia Currie, Chief, Project Clearance Branch (PCB)

Address: 6705 Rockledge Drive, RKL1/803-B

Telephone: (b) (6).1

Fax: 301-435-3509

Email: (b) (6)

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- A.2. Purpose and Use of the Information COLLECTION
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- A.5 Impact on Small Businesses or Other Small Entities
- A.6 Consequences of Collecting the Information Less Frequently
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Attachments (save file names to match what is being referenced: (ex: x.baseline; y.screener)

ATTACHMENTS

Attachment 1 Sub-study template form

Attachment 2 Mini SSA

Attachment 3 Privacy Act Memo

Attachment 4 published 30-day FRN

A. Justification

This is a new generic collection titled, “Generic Clearance for NIH Citizen Science and Crowdsourcing Projects.” Projects under this generic clearance will allow Agency researchers and program staff to test ideas more quickly, respond to the project’s needs as they evolve, and incorporate feedback from participants for flexible, innovative research methods. Any collection under this umbrella is expected to be low in burden.

A.1 Circumstances Making the Collection of Information Necessary

Section 413 (b) (3) of the Public Health Service Act, 42 U.S. Code § 285 gives NIH the authority to collect this information.

Pursuant to Section 402 of the American Innovation and Competitiveness Act (P.L. 114-329) federal agencies have broad authority to use crowdsourcing to advance agency missions and facilitate broader public participation in the innovation process. The purpose of this collection is to identify existing research, educational, operational, and project information from the public in order to share more widely with a range of audiences. These types of collections will further the legislation’s purposes of “accelerating scientific research, increasing cost-effectiveness to maximize the return on taxpayer dollars, addressing societal needs, providing hands-on learning in STEM, and connecting members of the public directly to federal science missions and to each other.”

Many federal and non-federal organizations are already using innovative citizen science and crowdsourcing tools to advance their missions. These tools are especially valuable where data are sparsely distributed or when projects rely on large datasets. Successful citizen science and crowdsourcing projects usually result from iteration of the design based on feedback from the participants. Also, there could be uncertainty about whether the time and effort to create a project will capture the interest of the public and yield meaningful public participation.

Citizen science and crowdsourcing are tools that engage, educate and empower the public to apply their curiosity and contribute their talents and feedback to a wide range of scientific and societal issues. Citizen Science is a form of open collaboration where the public can participate actively in the scientific process through methods that include asking research questions, collecting and analyzing data, interpreting results, or engaging in problem solving. Crowdsourcing is a process where individuals or organizations submit an open call for contributions of information from a group of individuals (“the crowd”).

A.2 Purpose and Use of the Information Collection

The purpose of this information collection is to:

- Accelerate scientific research
- Increase cost-effectiveness to maximize the return on taxpayer dollars

- Address societal needs
- Provide hands-on learning in STEM education
- Connect members of the public directly to federal science missions and each other
- Identify and disseminate resources more broadly to the public, on the Institutes' and Centers' (ICs) websites, and/or
- Collect information for agency internal use to improve scientific practices and/or assist in scientific reviews

Citizen science and crowdsourcing collections under this generic clearance may include the following types of questions or requests of participants:

- **Personal and Contact Information.** Projects submitted under this generic clearance may solicit contact information. This information may be necessary to organize and analyze data. Projects may request contact information (name and email address, zip code, address and phone number) to provide participants with project updates and share data. Participants would be made aware that the publically available data on contact information will be anonymized and aggregated, for example, by census tract, zip code, city, or some other higher level than individual addresses.
- **Names and Nominations.** NIH relies on nominations to recruit appropriate scientific expertise, broaden membership of review panels, and receive recommendations for reviewers. Projects submitted under this generic clearance may include public solicitations for nominations, to include project overviews, request for abstracts, or relevant qualifying questions related to the reason for individual's nomination. This information would only be used by NIH internally to select eligible candidates from the scientific community.
- **Experience and Expertise.** For data quality purposes, projects submitted under this generic clearance may request information to evaluate the skill level of the participant by asking about their experience with the project topic. Questions may be about a person's age range, level or topic of education, participation in organizations, or professional experience.
- **Requests for population characteristics** within crowdsourcing mechanisms, such as institutional affiliation and career level/stage. For example, this mechanism will allow for individuals interested in a certain topic to sign up for alerts that NIH may send in the future, and at the same time allows NIH to identify individuals interested in various topics with a goal to potentially contact them in the future.
- **Identification or Descriptions of Extramural Research, Research Tools, or Existing Resources.** Projects may include requests to identify and/or describe extramural research, research tools, or existing resources. This will allow NIH to identify best practices and developments within the scientific community that could inform future NIH program development. This could be a means to publicly identify emerging tools, guidance, or research or to review, vet, and encourage the use of public health interventions in the community and clinical settings. Making this information publicly available could enhance the quality, speed, and public health impact of efforts to translate research into practice. It will also help the agency understand resources availability in extramural or other public environments.

To obtain approval for a collection that meets the conditions of this generic clearance, a standardized form, depending on complexity of sub-study, a template or “Mini-Supporting Statement A (Mini-SSA)” will be submitted to OMB along with any other supporting documentation

A.3 Use of Information Technology and Burden Reduction

If appropriate, programs will collect information electronically and/or use online collaboration tools to reduce burden. Screenshots will be provided for all online data collection instruments. A Privacy Impact Assessment (PIA) will be completed for all online requests.

A.4 Efforts to Identify Duplication and Use of Similar Information

No similar data are gathered or maintained by the agency or available from other sources known to the agency.

A.5 Impact on Small Businesses or Other Small Entities

Small business or other small entities may be involved in these efforts, but the agency will minimize the burden on them of information collections approved under this clearance by sampling, asking for readily available information, and using short, easy-to-complete information collection instruments.

A.6 Consequences of Collecting the Information Less Frequently

Forms will be submitted on an as needed basis.

A.7 Special Circumstances Relating to the Guidelines of 5 CFR 1320.5

There are no special circumstances. The information collected will be voluntary, not generalizable, and will not be used for statistical purposes.

A.8.1 Comments in Response to the Federal Register Notice

The 60-day Federal Register Notice was published on October 4, 2019 (Vol. 84, pg. 53162) and allowed 60 days for public comment. No public comment was received.

A.8.2 Efforts to Consult Outside Agency

No outside consultation is intended

A.9 Explanation of Any Payment of Gift to Respondents

It is possible that some information collection activities will entail a small payment or gifts to respondents. The agency does not typically provide payment or other forms of remuneration to

participants, however if it is necessary for hard to reach populations, details and a justification will be provided. Instances for offering an incentive will be determined on a case-by-case basis (depending on the particular information collection design).

A.10 Assurance of Confidentiality Provided to Respondents

Personal Identifiable Information (PII) will only be collected to the extent necessary. Respondents will be assured that neither their participation nor lack of participation will have any effect on their eligibility for receipt of services. In addition, respondents will be advised of the purpose of the information collection, the use of information collection, NIH sponsorship, that their participation is voluntary, and that they may choose to discontinue or have their name and/or related information withdrawn at any time. In instances where it is possible, information will be presented in an aggregate form without links to the identity of individual participants. The Privacy Act applies to the information collection per Privacy Act System of Records Notice (SORN) 09-25-0156, *“Records of Participants in Programs and Respondents in Surveys Used to Evaluate Program of the Public Health Service, HHS/PHS/NIH/OD”*.

It may be necessary for some information collections to retain name and contact information to be used to contact potential respondents. In these instances, the rationale for retention of PII will be fully explained. Most of the information collections to be conducted under this clearance is considered exempt from Institutional Review Board (IRB) review at NIH. However, if it is determined that the information collection involves non-exempt activities, the staff will be required to submit the information collection for review to the IRB for approval.

A.11 Justification for Sensitive Questions

This generic will allow for sensitive questions specifically in the context of determining demographics and promoting diversity. NIH values diversity (NOT-OD_20-031) and inclusion, and this data will assist NIH in being more inclusive of culturally, medically, and behaviorally sensitive matters. All questions of a sensitive nature will be justified. The justification will include the reasons why the agency considers the questions necessary, the specific uses to be made of the information, the explanation to be given to persons from whom the information is requested, and any steps to be taken to obtain their consent. All sensitive questions will be voluntary fields.

A.12.1 Estimates of Hour Burden Including Annualized Hourly Costs

Participants in these activities may include research in academia or industry, clinicians, patients and patient’s advocacy organizations, other non-governmental organizations, and members of the public. A variety of instruments and platforms will be used to collect information from respondents and each sub-study will vary by number of respondents and average time per response. However, the annual burden hours requested 18,601 is based on the number of collections we expect to conduct over the requested three-year period for this clearance.

Table 12-1 Estimated Annualized Burden Hours

Type of Collection	No. of Respondents	No. of Responses per Respondent	Time per Response (in hours)	Total Hours
Call for Nominations/Resources	1,000	1	10/60	167
Recommendations of scientific reviewers	1,000	1	5/60	83
Request for Population Characteristics	20,000	1	5/60	1,667
Repository of Tools and Best Practices	100,000	1	10/60	16,667
Total		122,000		18,584

A.12-2 ANNUAL COST TO RESPONDENT

These estimates are based on the following data from the Bureau of Labor Statistics: the General Public rate was obtained from the https://www.bls.gov/oes/2018/May/oes_nat.htm#00-0000 occupation title “All occupations” occupation code 00-0000. The Health Professionals wage rate was obtained from https://www.bls.gov/oes/2018/May/oes_nat.htm#00-0000 occupation title “Healthcare Practitioners and Technical Occupations”, occupation code 29-0000; and the Health Educators wage rate was obtained from <http://www.bls.gov/oes/current/oes211091.htm>, occupation code 21-1091.

Table 12-2 Annualized Cost to Respondents

Type of Respondents	Total Annual Burden Hours	Hourly Respondent Wage Rate*	Respondent Cost
General Public	18,334	\$24.98	\$457,983
Health Professionals	83	\$39.42	\$3,272.00
Health Educators	167	\$28.68	\$4,789.56
TOTAL	18,584		\$466,044

*The General Public http://www.bls.gov/oes/2018/may/oes_nat.htm#00-0000

The Health Professionals <http://www.bls.gov/oes/2018/may/oes290000.htm>

A.13 Estimate of Other Total Annual Cost Burden to Respondents or Record Keepers

There are no additional costs of than a respondent's time.

A.14 Annualized Cost to the Federal Government

The annual cost to the Federal Government for the proposed data collection effort is \$11,977.50

Cost Descriptions	Grade/Step	Salary*	% of Effort	Fringe (if applicable)	Total Cost to Gov't
Federal Oversight					
Asst. Project Officer	GS 13/6	\$119,775	10%		\$11,977.50
Contractor Cost					
Travel					
Other Cost					
Total					\$11,977.50

*the Salary in table above is cited from <https://www.opm.gov/policy-data-oversight/pay-leave/salaries-wages/salary-tables/18Tables/html/DCB.aspx>

A.15 Explanation for Program Changes or Adjustments

This is a new information collection request.

A.16 Plans for Tabulation and Publication and Project Time Schedule

The information collected through this collection is primarily for internal review and will not be published. However, for certain activities, information may be published on an NIH website or included in a printed or online program for the activity or subsequent publication describing the activity. Each project submitted under this generic clearance will specify plans for tabulation, timeline, and publication of the information collection.

A.17 Reason(s) Display of OMB Expiration Date is Inappropriate

The OMB control number and expiration date will be displayed.

A.18 Exceptions to Certification for Paperwork Reduction Act Submissions

None

From: Islam, Emrul (NIH/OD) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=1F1C9E75325D459B950E505EDEB7C4D2-ISLAME2]
Sent: 4/29/2020 2:23:02 PM
To: Ta, Kristin (NIH/OD) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=72dc8e6c4cae4efcaa9e72eabbff2ee3-takr]
CC: Rosen, David (NIH/OD) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=69420daeaacb44ffa9b1af4264466894-rosend2]
Subject: Project Tracker Status Update

Hello Kristin,

We have made significant changes to the project tracker since our last meeting based on the requests given by Avery Tucker.

Here are the brief overview of the changes:

- (1) A project can now have multiple Business Areas
- (2) A staff can belong to multiple Business Areas
- (3) Reminder will be sent 1,3, 7 days prior to action due
- (4) All the below comments taken care of

Here's what's needed from you since roles and users might have changed since you last used this :

- (1) List of users and what business area they belong to (I will activate the daily reminder once you send me the updated list)

Please test the system and let me know of any issues. Right now it is in our staging server which may perform a little slow. We will move to production server once you're satisfied.

Thank you,
Emrul

OPERA Tracker – Comments from Pilot Team

- Need for reminder emails
- Not receiving notification emails (may be going to the wrong person)
- Default for send notification should be 'yes'. Opt-out only.
 - o OK
- Dashboard
 - o Pending Actions at the top
 - o List project name with Action
 - o Currently no indication of past due
 - OK
- Project page
 - o Show open/pending actions only
 - o Click to go somewhere else and view closed
 - o Shouldn't be able to have an end date that is before the start date
 - OK
- Actions
 - o can't open attachments
 - o Attachments don't display on the view page

- All fields should display on the view
 - OK
- Can project be updated to have multiple business areas?
 - Limit access by Action
 - Example: deviations, FOIA requests
 - It is currently written by role that is not structured with more than 1 business areas. Will look into best way to adapt this.
 - Need to figure out the priority with making this change based on the level of effort.
- Pages not loading
 - Try and get list of pages not loading and send back
- Auto-populating project end date- 1970
 - Will update
- Default dashboard should show only open projects
 - OK
- Project List
 - Need to be able to sort, not just filter
 - Should display newest on top
 - Default to Open only
 - OK
- Can't delete projects (action manager should be able to do it)
 - Action managers should be able to archive and we can come up with an archive policy to delete projects in the long term, or determine the best options for deletion moving forward
- "actions assigned" bubble doesn't go anywhere
 - Should direct user to dashboard
- Business Areas: Remove 'Systems'. Just keep Systems Policy
 - Ok
- Once a dropdown is selected, can't clear it.
 - Need to figure out which fields are not required to build in the option to deselect
- Lead entity (potentially remove, and use projects to track the source of the work e.g. HHS, CARR, etc.)

Emrul Islam

Web Developer

NIH\OD\OER

From: Bulls, Michelle G. (NIH/OD) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=B366F1A4382D44C1BDE626E7730C3DD4-BULLSMG]
Sent: 5/4/2020 6:06:01 PM
To: Black, Jodi (NIH/OD) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=782921b9f08249b59a582e93f6963f5f-blackj]
CC: Bulls, Michelle G. (NIH/OD) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b366f1a4382d44c1bde626e7730c3dd4-bullsmg]
Subject: FW: WIV
Attachments: RE: Direct Reply w/ OD Clearance - Wuhan Institute of Virology (WF390335); NIH letter to UCI re Wuhan Institute of Virology dd (4-30-2020) final mgb and kt

Hi Jodi,
Attached are the updates that I provided to you last week.

Attachment 1: notifies you that I have restricted all funds to WIV from the NIMH grant – the details in this attachment outlines the restricted \$660,054k which is the full amount of the subaward to WIV from UC-Irvine it's total costs, as discussed Friday. They cannot draw down any funds.

Attachment 2: is the letter that was drafted for Mike Lauerto send to UC-Irvine (prime) suspending the sub to WIV. The letter should cc Terri Jarosik/NIMHs CGMO

Next steps [REDACTED] (b) (5)
[REDACTED] (b) (5)

Michelle

From: Black, Jodi (NIH/OD) [E] [REDACTED] (b) (6)
Sent: Monday, May 4, 2020 1:39 PM
To: Bulls, Michelle G. (NIH/OD) [E] [REDACTED] (b) (6)
Cc: Tarwater, Robert (NIH/OD) [E] [REDACTED] (b) (6)
Subject: Re: WIV

I have no updates. If you could advise on possible next steps that would be helpful:

[REDACTED] (b) (5)
[REDACTED]. What are the options?

Thanks
Jodi

Jodi B. Black, PhD, MMSc
Deputy Director
Office of Extramural Research, NIH

From: Michelle Bulls [REDACTED] (b) (6)
Date: Monday, May 4, 2020 at 1:12 PM
To: Jodi OER [REDACTED] (b) (6)
Cc: Robert Tarwater [REDACTED] (b) (6)
Subject: RE: WIV

Jodi,
Do we have an update on this? [REDACTED] (b) (5)
[REDACTED]. Any updates?

From: Black, Jodi (NIH/OD) [E] [REDACTED] (b) (6)
Sent: Thursday, April 30, 2020 8:50 AM
To: Bulls, Michelle G. (NIH/OD) [E] [REDACTED] (b) (6)
Cc: Tarwater, Robert (NIH/OD) [E] [REDACTED] (b) (6)
Subject: Re: WIV

(b) (5)

Please let me know how I can help

Best,
Jodi

Jodi B. Black, PhD, MMSc
Deputy Director
Office of Extramural Research, NIH

From: Michelle Bulls [REDACTED] (b) (6)
Date: Thursday, April 30, 2020 at 8:40 AM
To: Jodi OER [REDACTED] (b) (6)
Cc: Robert Tarwater [REDACTED] (b) (6), Michelle Bulls [REDACTED] (b) (6)
Subject: RE: WIV

I need time to review this and determine what can be done.

Just so I am clear, [REDACTED] (b) (5)
[REDACTED]
[REDACTED]

Michelle

From: Black, Jodi (NIH/OD) [E] [REDACTED] (b) (6)
Sent: Thursday, April 30, 2020 8:35 AM
To: Bulls, Michelle G. (NIH/OD) [E] [REDACTED] (b) (6)
Cc: Tarwater, Robert (NIH/OD) [E] [REDACTED] (b) (6); Black, Jodi (NIH/OD) [E] [REDACTED] (b) (6)
Subject: WIV

Hi Michelle, [REDACTED] (b) (5)
[REDACTED]. What are the options?

Thanks

Jodi

Jodi B. Black, PhD, MMSc

Deputy Director

Office of Extramural Research, NIH

From: Bulls, Michelle G. (NIH/OD) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=B366F1A4382D44C1BDE626E7730C3DD4-BULLSMG]
Sent: 4/30/2020 8:28:59 PM
To: Black, Jodi (NIH/OD) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=782921b9f08249b59a582e93f6963f5f-blackj]
CC: Bulls, Michelle G. (NIH/OD) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b366f1a4382d44c1bde626e7730c3dd4-bullsmg]
Subject: NIH letter to UCI re Wuhan Institute of Virology dd (4-30-2020) final mgb and kt
Attachments: NIH letter to UCI re Wuhan Institute of Virology (4-30-2020) mgb.docx

Hi,

I have revised Diane's draft to further refine our language and KT helped me get this on letterhead. It's prepped for Mike's signature. Let me know if you need anything additional



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

National Institutes of Health
Bethesda, Maryland 20892

(b) (5)



From: Dean, Diane (NIH/OD) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=684401597B3440D8AB1BEAC88938142D-DEANDI]
Sent: 5/4/2020 5:52:39 PM
To: Bulls, Michelle G. (NIH/OD) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=b366f1a4382d44c1bde626e7730c3dd4-bullsmg]
Subject: FW: DPI OI2 Request Process Information

Forwarding, as requested.

From: Kearse, Deborah (NIH/OD) [E] (b) (6)
Sent: Wednesday, April 15, 2020 9:22 AM
To: Valdez, Patricia (NIH/OD) [E] (b) (6) Sanders, Ashley (NIH/OD) [E] (b) (6)
Dean, Diane (NIH/OD) [E] (b) (6)
Subject: DPI OI2 Request Process Information

Good Morning ladies,

I know that OER has made a request for DPI to contact Diane when DPI receives a request from an OIG Agent or an FBI Agent that is asking for grant-related information. Ashley has already started to send a few requests to Diane.

However, given the impact of this request upon DPI's SOPs for the OI2 process, before I make any permanent changes to any DPI long-standing processes, I would like to have a meeting to discuss this with all of you. I would like to know more about OERs engagement with the OIG, and in fulfilling OI2 requests.

While I have had discussions with our OIG POC, and the OIG Hotline supervisor about the OIG and OI2 referral process, I have not received any feedback from the ICs or from anyone in NIH that has told me that the process used to fulfill OI2s wasn't working or needed improvement. However, if that is the case, I would like to hear more about that. I am amenable to processes that work for everyone.

Please let me know if you are free for a 30 minute call:
Today at anytime between 11:00 am – 12:30pm or 1:30pm – 3:00 or 4:00pm
Tomorrow anytime before noon or at 4:00pm.
Friday anytime between 11:00am and 4:00pm

If this week isn't good for you, we can also look at next week.

Thanks,
Debk

Deborah Kearse, Director
Division of Program Integrity
Office of Management Assessment
National Institutes of Health
6011 Executive Boulevard, Suite 601
Rockville, MD 20852
Desk: (b) (6)
Mobile: (b) (6)

From: Collins, Francis (NIH/OD) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=410E1CA313F44CED9938E50D2FF0B6C2-COLLINSF]
Sent: 5/8/2020 4:13:17 PM
To: Myles, Renate (NIH/OD) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7d317f5626934585b3692a1823c1b522-mylesr]; Burklow, John (NIH/OD) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=2e57f267323b43c08be856acb5b964ca-burklowj]; Tabak, Lawrence (NIH/OD) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=02e22836b5ff4e9988e3770cfc7ee770-tabakl]; Fauci, Anthony (NIH/NIAID) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=df38103d75134f658ae2d356f0396b94-a-fauci]; Hallett, Adrienne (NIH/OD) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=f1705e2e7c254b84a77f058dbf75b31b-halletta]; Lauer, Michael (NIH/OD) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=90fe9cae30c64cfbb67abd568e882796-laer]; Mascola, John (NIH/VRC) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=7f78b40a596b4ca4a2850a429d1ae3f2-jmascola]
Subject: FW: Editorial posting later today
Attachments: 0515Editorial_Holden_D.pdf

FYI. Note that our vaccine paper is coming out Monday!

From: Holden Thorp <hthorp@aaas.org>
Sent: Friday, May 8, 2020 9:25 AM
To: Collins, Francis (NIH/OD) [E] (b) (6)
Subject: Editorial posting later today

Francis,

Wanted to give you a heads up that I will be posting at 2 pm today an editorial (attached) about the controversy surrounding the origins of the coronavirus and the actions of the Chinese and US governments. It does question the withdrawal of the grant to the EcoHealth Alliance but also expresses my support for you and your colleagues and the difficult situation you are in.

Thank you for all you are doing for us all. We are excited to publish your vaccine paper on Monday!

Holden

Holden Thorp
Editor-in-Chief
Science Family of Journals
American Association for the Advancement of Science
1200 New York Ave NW
Washington, DC. 20005
Landline: 202-326-6505
Cell: (b) (6)
hthorp@aaas.org

Both/and problem in an either/or world

Before the coronavirus disease 2019 (COVID-19) pandemic, nuance and candor from governments were in short supply. Now they are almost nonexistent. Protecting the world from severe acute respiratory syndrome-coronavirus 2 (SARS-CoV-2) can't happen without international scientific collaboration. Progress on vaccines in China and the United States should make us optimistic that science will solve this problem, but the actions of the governments involved are not equally inspiring.

The saber rattling by China and the United States is unnecessary, as the broad impacts of the pandemic in both countries are shared. Isn't that worth curbing nationalistic tendencies? Apparently not to China, which has rebuffed efforts to understand the origin of SARS-CoV-2. And not to the Trump administration either, which can't grasp that it's possible to question the actions of the Chinese government about the early days of the pandemic while embracing collaboration with Chinese science. In a worldwide pandemic, isn't it best for everyone to cooperate and try to save all of humanity together?

We need a both/and approach, but we are living in an either/or world.

The latest setback is the decision by the U.S. National Institutes of Health (NIH) to terminate the grant "Understanding the Risk of Bat Coronavirus Emergence" to Peter Daszak of the nonprofit EcoHealth Alliance, who, with NIH approval, shared one in five grant dollars with Shi Zhengli, a top coronavirologist at China's Wuhan Institute of Virology (WIV). We are asked to believe that the highly ranked project was killed because even though it sought to prevent the next bat-originating human pandemic, it did not "align" with the NIH's goals and priorities. This comes while the administration is propping up and circulating the unproven theory that the virus escaped from the Shi lab at the WIV, when the science is clearly in favor of zoonotic transfer in nature.

The genetic sequence of SARS-CoV-2 rules out a lab-engineered virus. And although escape from a lab of a naturally occurring virus that was isolated from bat specimens collected by scientists cannot be completely eliminated as the origin, the closest laboratory version of the virus (published by Shi and collaborators) is separated from SARS-CoV-2 by at least 20 years of evolutionary time. SARS-CoV-2 would have had to have

escaped from the lab decades ago—or, another virus that was brought into the lab and not documented somehow escaped. Either way, only a chain of unlikely events could explain laboratory involvement.

The U.S. administration instructed its intelligence community to investigate this matter. Last week, these intelligence agencies ruled out that the virus was lab-engineered. They have not reached any conclusions about whether a virus might have escaped from the lab. But in the absence of evidence, the administration will likely turn uncertainty into "truth"—a lab escape—that serves its narrative.

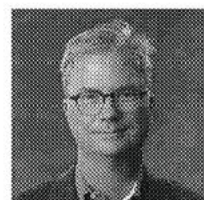
Even in the face of the intelligence report to the contrary, U.S. Secretary of State Michael Pompeo initially said that "the best experts so far seem to think it was man-made." Apparently, the best experts are neither scientists nor intelligence experts. Pompeo claims to have additional evidence that we are unlikely to see, if it even exists.

What would we have learned from the research that got squashed? Daszak and his colleagues were working to pinpoint hotspots in southern China with a high risk of bat-to-human transfer (most likely with an intermediary species involved) of coronaviruses. It might be good to find those hotspots if we don't want to go through all of this again. And as important, the bat coronavirus sequences identified at the WIV were used in lab tests of the drug remdesivir, currently the only scientifically supported treatment for COVID-19. Vanderbilt University's Mark Denison, who helped advance the drug, said of the Alliance's research, "Our work on remdesivir absolutely would not have moved forward" without it.

I feel for, and admire, our scientific colleagues in the U.S. federal government. They are giving all they've got to protect the American public and others under impossible circumstances. Before the pandemic, the NIH went overboard to deal with foreign influence in U.S. research because of the nationalistic pressure it was under. Now, the agency is trying to dodge political lunges from an administration that puts political success above human life.

The tyranny of either/or is that we only survive on our own. The promise of both/and is that the world is imperfect but we're all in this together.

—H. Holden Thorp



H. Holden Thorp
Editor-in-Chief,
Science journals.
hthorp@aaas.org; @
hholdenthorp

**"The saber
rattling by
China and the
United States is
unnecessary..."**

From: Lauer, Michael (NIH/OD) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=90FE9CAE30C64CFBB67ABD568E882796-LAUERM]
Sent: 5/22/2020 3:42:04 PM
To: Allen-Gifford, Patrice (NIH/OD) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=67262490d6d441b48efec1aff0700250-allengiffor]
CC: Pollock, Rachel (NIH/OD) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4887cb3513e242dfa7d2df712dcc6d6a-pollockrc]; Lauer, Michael (NIH/OD) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=90fe9cae30c64cfbb67abd568e882796-lauerm]
Subject: Re: EcoHealth Alliance Incomings
Attachments: FW: EcoHealth Alliance Incomings

Many thanks Patrice – timing works well because I have my 1:1 with Larry at 5:15 this afternoon. I just forwarded the materials to him.

Best, Mike

From: "Allen-Gifford, Patrice (NIH/OD) [E]" (b) (6)
Date: Friday, May 22, 2020 at 11:35 AM
To: "Lauer, Michael (NIH/OD) [E]" (b) (6)
Cc: "Pollock, Rachel (NIH/OD) [E]" (b) (6)
Subject: FW: EcoHealth Alliance Incomings

Hi Mike,

I just learned this morning that we have several letters on this, some from significant organizations (examples attached). I think I should share these with Larry – unless you prefer to do so in the course of your follow up conversation with him. Will you let us know please if after you talk with Larry, there are changes to the draft we received (attached) to clear?

Thank you,
Patrice

From: Allen-Gifford, Patrice (NIH/OD) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=67262490D6D441B48EFEC1AFF0700250-ALLENGIFFOR]
Sent: 5/22/2020 3:33:34 PM
To: Lauer, Michael (NIH/OD) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=90fe9cae30c64cfbb67abd568e882796-lauerm]
CC: Pollock, Rachel (NIH/OD) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4887cb3513e242dfa7d2df712dcc6d6a-pollockrc]
Subject: FW: EcoHealth Alliance Incomings
Attachments: 1a Letter to Dr. Collins from The American Association of Immunologists.May 20, 2020.pdf; RE: Question about CBS report of a terminated research grant; 1a IDSA-HIVMA-ASTMH-PIDS EcoHealth Alliance grant_Final.pdf; 29 Organizations and over 300 scientists sign a letter demanding NIH re-fund EcoHealth Alliance; 1 Letter to Secretary Azar.pdf; EcoHealth Response.doc

Hi Mike,

I just learned this morning that we have several letters on this, some from significant organizations (examples attached). I think I should share these with Larry – unless you prefer to do so in the course of your follow up conversation with him. Will you let us know please if after you talk with Larry, there are changes to the draft we received (attached) to clear?

Thank you,

Patrice

The AMERICAN ASSOCIATION of
IMMUNOLOGISTS



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Executive Director
M. Michele Hogan, Ph.D.

May 20, 2020

Francis S. Collins, M.D., Ph.D.
Director, National Institutes of Health
1 Center Drive, Building 1, Room 126
Bethesda, MD 20814

Dear Dr. Collins:

We are writing on behalf of The American Association of Immunologists (AAI), the nation's largest professional association of research scientists and clinicians who are dedicated to studying the immune system. As you know, many of our members are deeply immersed in research that may lead to needed vaccines and treatments for COVID-19. This research and development, while potentially lifesaving during this pandemic, will no doubt also help prepare our nation and the world for future pandemics.

We were concerned, therefore, to learn of a decision by the National Institutes of Health (NIH) to revoke grant funding for the EcoHealth Alliance project entitled, "Understanding the Risk of Bat Coronavirus Emergence." As scientists who support merit-based peer review, we believe it is important for NIH to explain why this grant – which appears to fund research of great relevance to the COVID-19 pandemic – was abruptly terminated. While we understand there could be legitimate reasons for this action, the NIH response has been unsatisfactory. According to NPR, the email NIH sent to EcoHealth Alliance President Peter Daszak, Ph.D., informed him that, "at this time NIH does not believe the current project outcomes align with the program goals and agency priorities." NIH subsequently refused to answer questions regarding this grant termination or whether NIH had taken similar actions previously. This response is both confusing and troubling. Your explanation could reinforce confidence in the NIH grant review system at a time when many are concerned that world and national events may be politicizing the science we need the most. We support the request made in a community letter organized by our colleagues at the American Society for Biochemistry and Molecular Biology (ASBMB) for a full explanation of the reasoning for this grant termination.

AAI greatly appreciates your ongoing leadership and support for the nation's medical researchers and remains ready to assist you in these most challenging times.

Sincerely,

A handwritten signature in black ink, appearing to read 'J. M. Boss'.

Jeremy M. Boss, Ph.D.
President

A handwritten signature in black ink, appearing to read 'Ross M. Kedl'.

Ross M. Kedl, Ph.D.
Chair, AAI Committee
on Public Affairs

A handwritten signature in black ink, appearing to read 'M. Michele Hogan'.

M. Michele Hogan, Ph.D.
Executive Director

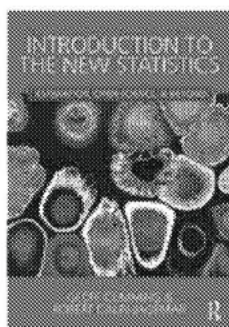
=====

Robert Calin-Jageman
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Neuroscience Program Director
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Shameless Self-Promotion: *Introduction to the New Statistics* is the first statistics textbook to focus on Open Science and the New Statistics. Instructors can obtain a free desk copy here: <https://www.routledge.com/resources/desktopcopy>. Or, [order on Amazon](#).



May 11, 2020

President Donald J. Trump
The White House
1600 Pennsylvania Ave. NW
Washington, DC 20500

Dear President Trump:

We write on behalf of the Infectious Diseases Society of America (IDSA), the HIV Medicine Association (HIVMA), American Society of Tropical Medicine and Hygiene (ASTMH), and the Pediatric Infectious Diseases Society of America (PIDS) to raise serious concerns regarding what appears to have been political interference in the scientific process with the termination of an EcoHealth Alliance grant that included a partnership with the Wuhan Institute of Virology (WIV).


Our organizations represent physicians, scientists and other healthcare professionals committed to infectious diseases, pediatric infectious diseases, tropical medicine, and global health. We were dismayed to learn about the termination of the National Institutes of Health (NIH) grant supporting an important international collaboration with WIV studying the transmission of coronaviruses from bats to humans, microbial genetics, and drug and vaccine development. Such studies are critical to understand the viruses, their transmission, and approaches for prevention and treatment of this dangerous illness. As of May 11, the current SARS-CoV-2 pandemic has resulted in more than 284,628 deaths globally, including more than 80,087 deaths in the U.S.

The grant from the NIH National Institute of Allergy and Infectious Diseases was in its sixth year and was renewed in 2019 for five years through the NIH peer review process, which is the gold standard for identifying and supporting the most promising biomedical research without bias. Basic research completed under the grant has been critical to the evaluation of remdesivir as a treatment for COVID-19, the first drug receiving FDA Emergency Use Authorization to treat hospitalized patients. The ongoing work of the Alliance has become more important than ever to help prevent future coronavirus pandemics. Furthermore, the NIH has not provided a legitimate cause for terminating the EcoHealth Alliance grant, which was given superb ratings in its renewal evaluation. There is no scientific evidence that SARS-CoV-2 originated at WIV or any other laboratory, and the NIH has not responded to inquiries asking for additional clarification and rationale.

An independent and impartial scientific process and robust support for global research collaborations have been indispensable in making the United States the world leader in biomedical research and establishing the NIH as the world's premier medical research enterprise. Continued independent and impartial processes are absolutely essential to the successful development of effective treatments, vaccines, and cures for many infectious diseases and the epidemics and pandemics they can cause. This includes SARS-CoV-2, the cause of severe COVID-19 disease.

We urge immediate reconsideration of the termination of the EcoHealth Alliance grant, with assurances that politics will not influence the scientific process. A failure to set strong boundaries between politics and science will set back future medical discoveries for years to come and leave the U.S. poorly prepared to respond to current and future pandemics. health crisis. If you have questions or require additional information, please do not hesitate to contact Amanda Jezek, IDSA Senior Vice President for Public Policy and Government Relations at ajezek@idsociety.org, or Andrea Weddle, HIVMA Executive Director at aweddle@hivma.org.

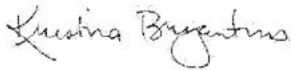
Sincerely,



Thomas M. File, Jr., MD, MSc
President, IDSA



Judith Feinberg, MD
Chair, HIVMA



Kristina Bryant, MD, FPIDS
President, PIDS



Karen A. Goraleski
CEO, ASTMH

CC: Francis S. Collins, MD, PhD, Director, NIH
Anthony S. Fauci, MD, Director, NIH's NIAID

From: Joseph Osmundson [jo58@nyu.edu]
Sent: 5/11/2020 8:13:02 PM
To: Collins, Francis (NIH/OD) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=410e1ca313f44ced9938e50d2ff0b6c2-collinsf]
Subject: 29 Organizations and over 300 scientists sign a letter demanding NIH re-fund EcoHealth Alliance
Attachments: Coronavirus Grant Cancellation Protest SIGN ON LETTER.pdf

Dr. Collins,

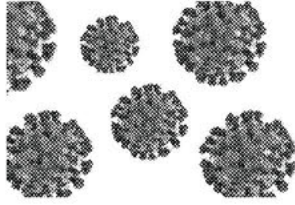
Today, the COVID-19 Working Group–NY (CWG-NY) is sending a letter, signed by 29 organizations, more than 300 scientists, physicians, and community health advocates, to Dr. Francis Collins, Director of the US National Institutes of Health (NIH), Dr. Anthony Fauci, Director of the National Institute for Allergy and Infectious Diseases (NIAID), and Alex Azar, Secretary of Health and Human Services, along with officials on the House Oversight Committee and the Senate Health Committee.

The letter expresses outrage at the canceling of a major R01 grant to the EcoHealth Alliance, an international collaboration that studies coronaviruses in bats to determine how they may evolve to transmit in human populations. **We demand immediate reinstatement of the R01 to EcoHealth Alliance.**

Signatories of the letter – which include scientists from many top research institutions across the US including Harvard, Yale, Stanford, University of Michigan, University of Pennsylvania, University of Wisconsin, University of Florida, University of California San Francisco, University of Washington, AstraZeneca, and Columbia University – called for immediate release of the NIH R01 funds to EcoHealth and for an investigation into the decision-making process that canceled the grant funding in the first place.

Best,

Joseph Osmundson
COVID-19 Working Group NY



**COVID-19 Working Group
New York City**
www.covid-19workinggroupnyc.org

The NIH must not cancel awarded grants for purely political reasons

On May 1, 2020, *Science Magazine* reported the cancelation of a major grant to the EcoHealth Alliance, an international collaboration studying how coronaviruses transmitting in bats can evolve to spread in human populations. Based on emails reviewed by Science, this decision appears to be directly related to the Trump administration's belief in the conspiracy theory that the SARS-CoV-2 virus, the cause of COVID-19, was purposefully or accidentally released from the Wuhan Institute of Virology. The Wuhan Institute of Virology was a participant in the EcoHealth Alliance grant that was canceled.

We ask for the immediate reinstatement of the grant to EcoHealth Alliance and for a congressional investigation into the decision making process at the NIH that canceled the funding in the first place. A vibrant community of independent scientists is crucial to a functioning democracy and will be the first line of defense against another crisis that costs as many lives as the COVID-19 pandemic.

To be clear, there is no evidence of human engineering of the SARS-CoV-2 virus nor of accidental release of a laboratory viral strain. Phylogenetic analyses clearly support the evolution of the SARS-CoV-2 virus from bats in the wild.

We write in strong condemnation of political interference in scientific grantmaking. The NIH has a long and well-established protocol for scoring and funding grants, including decisions on scientific merit, productivity, and the import of research by large panels of expert scientists. During the course of an NIH grant, alterations in funding are incredibly disruptive to ongoing research projects, many of which span years if not decades.

Cancelation of a grant mid-term will disrupt the progress of research in how coronaviruses can evolve to infect humans, the exact process that birthed SARS-CoV-2, leading to hundreds of thousands of deaths worldwide. This research was always critical given the possibility of a coronavirus pandemic; it is now absolutely essential to understand how this crisis originated and to avoid another pandemic in the

future. Bowing to conspiracy theories in this time of crisis to prevent necessary research may, therefore, be sowing the seeds of another crisis in the future.

In fact, the grant to EcoHealth Alliance provided critical data – including the sequences of closely related bat coronaviruses to SARS-CoV-2 – that both helped identify the origin of COVID-19 and identified remdesivir as a potential drug for the disease, allowing it to be rapidly moved into clinical trials. It is absurd and horrifying that the Trump administration would shut down a research program that led to the first promising treatment for COVID-19.

Beyond the critical importance of the research the NIH defunded, political interference in grantmaking is a disturbing trend that would allow politicians to effectively squash research that does not align with their political desires. Industry influence in research, the silencing of climate science, and long term harm of American science in the global climate become increasingly likely if politicians can easily meddle in grantmaking. We must stand united as a community of clinicians, scientists, activists, and citizens to demand the best – most transparent – scientific decision making process in this moment of crisis, and always.

Signed:

Organizations Signed On:

COVID-19 Working Group, New York City
The PrEP4All Collaboration
AVAC – AIDS Vaccine Advocacy Coalition
ICAP at Columbia University
ACT-UP
AIDS Foundation Chicago
Universities Allied for Essential Medicines (UAEM)
Center for Science in the Public Interest
Equity Forward
National Black Leadership Commission on Health
Association of Nurses in AIDS Care
Progressive Doctors
Black AIDS Institute
Latino Commission on AIDS
Treatment Action Group
AIDS Action Baltimore

TPAN – Test Positive Aware Network
HIV + Aging Research Project – Palm Springs
HealthxDesign
Georgia AIDS Coalition
Climate Health Now
National Working Positive Coalition
Prevention Access Campaign
The Well Project
Map Data Science
American Academy of HIV Medicine
GCCDC – Gowanus Canal Community Development Corporation
Bannon Consulting Services

Individuals Signed On:

David Ho, Director, Aaron Diamond AIDS Research Center of Columbia University
Vagelos College of Physicians and Surgeons
Gregg Gonsalves, Yale School of Public Health
Sten H. Vermund, Yale School of Public Health
Martin S. Hirsch, Harvard University
Seth Darst, The Rockefeller University
Anthony Eller, Yale AIDS Program
A. David Paltiel, Yale School of Public Health
Ted Cohen, Yale School of Public Health
Nathan Grubaugh, Yale School of Public Health
Robert Heimer, Yale School of Public Health
Taiga Christie, Yale School of Public Health
Eli Fenichel, Yale University
Samy Galvez, Yale University
David Vlahov, Yale University
Nathan Price, Yale University
Walther Mothes, Yale University
Nancy Stanwood, Yale University
Frederick L. Altice, Yale University School of Medicine
Akiko Iwasaki, Yale University School of Medicine
Angela L. Rasmussen, Columbia Mailman School of Public Health
Mady Hornig, Columbia University
Jacqueline Klopp, Columbia University
Sarah Lima, Columbia University Mailman School of Public Health
Maimuna S. Majumder, Boston Children's Hospital & Harvard Medical School
Donald Thea, Boston University School of Public Health

Jerry Avorn, Harvard Medical School
Julia Marcus, Harvard Medical School
Aaron Kesselheim, Harvard Medical School/Brigham and Women's Hospital
Ameet Sarpatwari, Brigham & Women's Hospital/Harvard Medical School
Robyn Lee, Harvard School of Public Health
Keletso Makofane, Harvard University
Bryan Terrazas, Harvard University
Grace Mosley, Icahn School of Medicine at Mount Sinai
Alice O Kamphorst, Icahn School of Medicine at Mount Sinai
AMIR HOROWITZ, Icahn School of Medicine at Mount Sinai
Miriam Merad , Icahn School of Medicine at Mount Sinai
Thomas Marron, Tisch Cancer Institute - Icahn School of Medicine at Mount Sinai
Duncan Maru, Icahn School of Medicine at Mount Sinai
Konstantina Alexandropoulos , Icahn School of Medicine at Mount Sinai
Stephen A Lauer, Johns Hopkins Bloomberg School of Public Health
David D Celentano , Johns Hopkins Bloomberg School of Public Health
Nicole Carter, Johns Hopkins School of Medicine
Sarah Horst, Johns Hopkins University
Edward Banigan, Massachusetts Institute of Technology
Mila González , Columbia University/ NewYork Presbyterian Hospital
Meredith Whittaker, Co-director, AI Now Institute at NYU
Joseph Osmundson, New York University
ENRIQUE R ROJAS, New York University
Brendan Parent, New York University
Michael Purugganan, New York University
Hayley Belli, New York University
ESTEBAN ORLANDO MAZZONI, New York University
Carol Shoshkes Reiss, New York University
Arthur L Caplan, NYU Grossman School of Medicine
Alison Bateman-House, NYU Grossman School of Medicine
Kelly Folkers, NYU Grossman School of Medicine
Aisha Langford, NYU Grossman School of Medicine
Jamie Webb, NYU Grossman School of Medicine Division of Medical Ethics
Tarlise Townsend, NYU Grossman School of Medicine, Department of Population Health
Christopher J. Morten, NYU School of Law
Bernardo S Reis, The Rockefeller University
Lisa Pomeranz, The Rockefeller University
Simin Liu, The Rockefeller University
Daniel Mucida, The Rockefeller University
Stefan Oliver, Stanford University
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Catherine M Herzog, Penn State University
Jayme Morris, Cooper University Hospital
Lukasz Kowalik, Cornell University
Matthew Herder, Dalhousie University, Health Law Institute
Jennifer Lai, Dartmouth College
Lisa Kearns, Division of Medical Ethics NYU Grossman School of Medicine
Heidi Sinclair, Doctors for America; American College of Physicians; American Geriatric Society
Kendra Phelps, EcoHealth Alliance
Kathrine Meyers, Aaron Diamond AIDS Research Center of Columbia University Vagelos
College of Physicians and Surgeons
Dave Gold, Global Health Strategies
Peter Barfuss, École des Ponts ParisTech
Elisa Mandell Keller, EMK Strategic Consulting
Olivier Pernet, EnViro International Laboratories
Susan Tsang, American Museum of Natural History
Jonathan Silver, AstraZeneca
Alexi Grousis-Henderson, Audubon
Dr Alison Cameron, Bangor University
Paul Henry Tremblay, Best Buy Technology
Kimberly Piper, Beth Israel Deaconess Medical Center
Donald Thea, Boston University School of Public Health
Ameet Sarpatwari, Brigham & Women's Hospital/Harvard Medical School
Marcello Graziano, Central Michigan University
M. Drew LaMar, College of William and Mary
Graham J McDougall Jr, Florida State University College of Nursing
Jeffrey Levi, George Washington University
Adam R. Ward, George Washington University, Milken Institute School of Public Health

Kristin Harper , Harper Health & Science Communications LLC
Simon Collins, HIV i-Base
Isaiah Sumner, James Madison University
Bruce Jennison , JENNISONFYI
Emmy Killett, Jet Propulsion Lab
Jennifer Chang, Kaiser Permanente at Los Angeles Medical Center
Tara C Smith, Kent State University
Kimberly Stone, Kimberly C Stone PA
Lorna B. Hall, La Cheim Behavioral Health
Stephan R. Glick, Lehigh Valley Physician Group
Jeremy P. Kamil, LSU Health Sciences Center
Meredith Clement, LSU Health Sciences Center
Lydia Wills, Lydia Wills LLC
Amy H Fitzpatrick, Marine Institute
Tony Mistretta, Medical Management
Wendell Bell, Minnesota State Bar Assn.
Ellyse A. Vitiello, Morningside Monthly Meeting (Quakers)
Greta J. Quintin, Morristown Emergency Services
Navin Pokala, New York Institute of Technology (NYIT)
Mark Cutis, Nihon Phoenix Advisors
Leo Beletsky, Northeastern University
Katrina Kuh, Pace Law School
Aaron Steiner, Pace University
Michelle Fearon, University of Michigan
John Dennehy, Queens College CUNY
Jennifer C Fish, MD, Santa Rosa Community Health
Michael W. Busch, SETI Institute
Sofia P Singer, Seven Directions
Princess McLawrence-Manning, SMART, NYCWC
Sanjeev K Sriram, Social Security Works
Danielle N. Lee, Southern Illinois University Edwardsville
Lillian M Davalos, Stony Brook University
Stephen B Baines, Stony Brook University
Frances Ryan, Commission for Persons with disAbilities
Matt Sharp, The Reunion Project
Thomas St. Julien Lankiewicz, The University of California, Santa Barbara
Arthur R. James, Three Peas in a Pod
Amelia Gifford, Toxics Use Reduction Institute
Perry Mitchell, Truckee Meadows Community College
Lawrence Hunter, University of Colorado School of Medicine
Blair T. Johnson, University of Connecticut
Jennifer L. Hoffman, University of Denver

Patrick Kearns, University of Edinburgh Wellcome Lecturer & Harvard University Frank Knox Fellow

Michael Riley II, University of Florida

Adria LeBoeuf, University of Fribourg

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John Moore, Weill Cornell School of Medicine

Judith Feinberg, West Virginia University

Linda Grabill, Western Washington University

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Arthur Rourke
Tara Martinez
Ken Kidd

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K Barrett
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Elizabeth Eisen
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Gláucia Furtado
Michael O'Quinn
Siobhan Cooke
Jaclyn Novatt
Jhilya Mayas
Caitlyn Passaretti
W. David Hardy
Amanda Ramsdell
Laura Raffield
Kimberleigh Smith
Barbara McCormack
Toph Allen (Christopher Allen)



May 12, 2020

The Honorable Alex Azar
Secretary
U.S. Department of Health and Human Services
200 Independence Avenue, S.W.
Washington, D.C. 20201

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*on leave of absence

241 18th Street South
Suite 501
Arlington, VA 22202

P 703.739.2577

F 703.739.2372

E info@researchamerica.org

Dear Secretary Azar,

On behalf of Research!America, I am writing to request that you clarify the decision to end National Institutes of Health (NIH) grant funding for the EcoHealth Alliance project entitled "Understanding the Risk of Bat Coronavirus Emergence." We believe the American people, whose tax dollars enable federal grants for life-saving research and other national priorities, deserve more clarity on the basis of this decision than has thus far been provided.

The abrupt termination of this grant has generated concern, not only because of the relevance of this research to COVID-19 and future pandemics, but because the lack of transparency surrounding the termination creates uncertainty about the integrity of federal grant-making.

We certainly appreciate there may be facets of this decision that cannot be made public, but given the high degree of integrity expected of the NIH extramural grant program, we urge the Administration to bring as much information to light as possible surrounding this decision.

We respectfully request that you provide the American public with insight into the basis of the decision to end funding for the EcoHealth grant and how this decision conforms to the circumstances in which grant terminations are permitted under the United States Code of Federal Regulations.

We are grateful for your leadership during this profoundly challenging period in our nation's history, and appreciate your consideration of this request.

Sincerely,

The Honorable Michael N. Castle
Chair, Member of Congress 1993-2011

Mary Woolley
President and CEO



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

National Institutes of Health
Bethesda, Maryland 20892

(b) (5)

From: Lauer, Michael (NIH/OD) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=90FE9CAE30C64CFBB67ABD568E882796-LAUERM]
Sent: 5/26/2020 2:11:45 PM
To: Jacobs, Anna (NIH/OD) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e76eeb11df9a4024b53864ffac4c4c56-jacobsal]
CC: Black, Jodi (NIH/OD) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=782921b9f08249b59a582e93f6963f5f-blackj]; Lankford, David (NIH/OD) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4f29a9bef672409d967e3aa5fb36e96a-lankford]; Lauer, Michael (NIH/OD) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=90fe9cae30c64cfbb67abd568e882796-lauerm]
Subject: Re: EcoHealth Alliance re Termination of NIH Research Grant R01 AI 110964
Attachments: Re: Partial Suspension-IMPORTANT; Partial Suspension-IMPORTANT; FW: Please read and acknowledge receipt -- Actions needed regarding 2R01AI110964-06

Hi again Anna – part 2 of background material.

Thanks, Mike

From: "Jacobs, Anna (NIH/OD) [E]" (b) (6)
Date: Tuesday, May 26, 2020 at 9:22 AM
To: "Lauer, Michael (NIH/OD) [E]" (b) (6)
Cc: "Black, Jodi (NIH/OD) [E]" (b) (6), "Lankford, David (NIH/OD) [E]" (b) (6)
Subject: RE: EcoHealth Alliance re Termination of NIH Research Grant R01 AI 110964

Good morning, Mike,

Thanks for providing this information. I'd be glad to discuss, if you'd like, although my familiarity with the matter is a bit limited. I can reach out to Melanie to find time. I assume 15 minutes will suffice. If a conversation is no longer needed, just let me or Melanie know.

Thanks,

*Anna L. Jacobs, J.D., M.S.
Senior Attorney
HHS Office of the General Counsel
Public Health Division, NIH Branch
31 Center Drive, Bldg. 31, Rm. 2B-50
Bethesda, MD 20892*

(b) (6) (phone)
301-402-1034 (fax)

(b) (6)

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From: Lauer, Michael (NIH/OD) [E] (b) (6)
Sent: Friday, May 22, 2020 6:04 PM
To: Jacobs, Anna (NIH/OD) [E] (b) (6)

Cc: Lauer, Michael (NIH/OD) [E] (b) (6); Black, Jodi (NIH/OD) [E] (b) (6); Lankford, David (NIH/OD) [E] (b) (6)

Subject: FW: EcoHealth Alliance re Termination of NIH Research Grant R01 AI 110964

Importance: High

Hi Anna— at some point we should discuss this.

Many thanks, Mike

From: "Matthew R. Torsiello" (b) (6)

Date: Friday, May 22, 2020 at 5:12 PM

To: "Lauer, Michael (NIH/OD) [E]" (b) (6)

Cc: "Linde, Emily (NIH/NIAID) [E]" (b) (6), "Stemmy, Erik (NIH/NIAID) [E]"

(b) (6), "Andrew N. Krinsky" (b) (6), "Nels T. Lippert"

(b) (6), "Black, Jodi (NIH/OD) [E]" (b) (6), "Erbelding, Emily (NIH/NIAID)

[E]" (b) (6), "Bulls, Michelle G. (NIH/OD) [E]" (b) (6), Peter Daszak

(b) (6), Aleksei Chmura (b) (6)

Subject: EcoHealth Alliance re Termination of NIH Research Grant R01 AI 110964

Dr. Lauer:

Please see the attached letter from Andrew N. Krinsky on behalf of EcoHealth Alliance, Inc., pursuant to NIH Grants Policy Statement Section 8.7, regarding the decision by NIAID to terminate NIH Research Grant R01 AI 110964 on or about April 24, 2020.

Thank you.

Best,
Matthew R. Torsiello



Matthew R. Torsiello | Associate

D: (b) (6) | F: 212-216-8001

(b) (6) | mtorsiello@tarterkrinsky.com

Tarter Krinsky & Drogin LLP
1350 Broadway | New York | NY | 10018
www.tarterkrinsky.com

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Tater Kinsky & Drogin LLP, Attorneys-at-Law.

From: Tabak, Lawrence (NIH/OD) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=02E22836B5FF4E9988E3770CFC7EE770-TABAKL]
Sent: 4/19/2020 1:51:18 AM
To: Lauer, Michael (NIH/OD) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=90fe9cae30c64cfbb67abd568e882796-lauerm]
Subject: Re: Partial Suspension-IMPORTANT

Thanks Mike; [REDACTED] (b) (5)
Larry

From: "Lauer, Michael (NIH/OD) [E]" [REDACTED] (b) (6)
Date: Saturday, April 18, 2020 at 9:50 PM
To: "Tabak, Lawrence (NIH/OD) [E]" [REDACTED] (b) (6)
Cc: "Lauer, Michael (NIH/OD) [E]" [REDACTED] (b) (6)
Subject: Re: Partial Suspension-IMPORTANT

Hi Larry

It looks like EcoHealth Alliance is linked to Columbia University. [REDACTED] (b) (5)
[REDACTED]

Of note, the PI of the grant is the President of EcoHealth Alliance. He seems to have a Columbia affiliation.

Best, Mike

From: "Tabak, Lawrence (NIH/OD) [E]" [REDACTED] (b) (6)
Date: Saturday, April 18, 2020 at 9:37 PM
To: "Lauer, Michael (NIH/OD) [E]" [REDACTED] (b) (6)
Subject: Re: Partial Suspension-IMPORTANT

Please let me know once it is sent.
Thanks
Larry

From: "Lauer, Michael (NIH/OD) [E]" [REDACTED] (b) (6)
Date: Saturday, April 18, 2020 at 9:33 PM
To: "Tabak, Lawrence (NIH/OD) [E]" [REDACTED] (b) (6)
Cc: "Lauer, Michael (NIH/OD) [E]" [REDACTED] (b) (6)
Subject: FW: Partial Suspension-IMPORTANT

Hi Larry – [REDACTED] (b) (5) I will get to the appropriate official tomorrow.

Thanks, Mike

From: "Tabak, Lawrence (NIH/OD) [E]" [REDACTED] (b) (6)
Date: Saturday, April 18, 2020 at 9:30 PM

To: "Lauer, Michael (NIH/OD) [E]" [REDACTED] (b) (6)

Subject: Partial Suspension-IMPORTANT

Mike,

[REDACTED] (b) (5)

Just let me know.

Thanks,

Larry

From: Tabak, Lawrence (NIH/OD) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=02E22836B5FF4E9988E3770CFC7EE770-TABAKL]
Sent: 4/19/2020 1:30:09 AM
To: Lauer, Michael (NIH/OD) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=90fe9cae30c64cfbb67abd568e882796-lauerm]
Subject: Partial Suspension-IMPORTANT
Attachments: Suspension of WIV_NIHB edits.docx

Mike,

(b) (5)

Just let me know.

Thanks,

Larry

(b) (5)

|

|

|

|

|

From: Lauer, Michael (NIH/OD) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=90FE9CAE30C64CFBB67ABD568E882796-LAUERM]
Sent: 4/19/2020 3:00:34 PM
To: Tabak, Lawrence (NIH/OD) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=02e22836b5ff4e9988e3770cfc7ee770-tabakl]
CC: Lauer, Michael (NIH/OD) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=90fe9cae30c64cfbb67abd568e882796-lauerm]; Black, Jodi (NIH/OD) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=782921b9f08249b59a582e93f6963f5f-blackj]
Subject: FW: Please read and acknowledge receipt -- Actions needed regarding 2R01AI110964-06
Attachments: EcoHealth Alliance re AI grant 4 19 20.pdf

Labeled "High Priority"

From: "Lauer, Michael (NIH/OD) [E]" (b) (6)
Date: Sunday, April 19, 2020 at 10:59 AM
To: (b) (6), Naomi Schrag (b) (6)
Cc: "Black, Jodi (NIH/OD) [E]" (b) (6)
Subject: Please read and acknowledge receipt -- Actions needed regarding 2R01AI110964-06

Dear Dr. Olival and Ms. Schrag

Please see attached.

Many thanks, Mike

Michael S Lauer, MD
NIH Deputy Director for Extramural Research
1 Center Drive, Building 1, Room 144
Bethesda, MD 20892
Phone: (b) (6)
Email: (b) (6)

Date: April 19, 2020

From: Michael S Lauer, MD
NIH Deputy Director for Extramural Research

Lauer, Michael
(NIH/OD) [E]
Digitally signed by Lauer,
Michael (NIH/OD) [E]
Date: 2020.04.19 10:47:40
-04'00'

To: Kevin Olival, PhD
Vice-President for Research
EcoHealth Alliance

(b) (6)

Naomi Schrag, JD
Vice-President for Research Compliance, Training, and Policy
Columbia University

(b) (6)

Subject: Project Number 2R01AI110964-06

Dear Dr. Olival and Ms. Schrag:

EcoHealth Alliance, Inc. is the recipient, as grantee, of an NIH grant entitled "Understanding the Risk of Bat Coronavirus Emergence." It is our understanding that one of the sub-recipients of the grant funds is the Wuhan Institute of Virology ("WIV"). It is our understanding that WIV studies the interaction between corona viruses and bats. The scientific community believes that the coronavirus causing COVID-19 jumped from bats to humans likely in Wuhan where the COVID-19 pandemic began. There are now allegations that the current crisis was precipitated by the release from WIV of the coronavirus responsible for COVID-19. Given these concerns, we are pursuing suspension of WIV from participation in Federal programs.

While we review these allegations during the period of suspension, you are instructed to cease providing any funds from the above noted grant to the WIV. This temporary action is authorized by 45 C.F.R. § 75.371(d) ("Initiate suspension or debarment proceedings as authorized under 2 C.F.R. part 180"). The incorporated OMB provision provides that the funding agency may, through suspension, immediately and temporarily exclude from Federal programs persons who are not presently responsible where "immediate action is necessary to protect the public interest." 2 C.F.R. § 180.700(c). It is in the public interest that NIH ensure that a sub-recipient has taken all appropriate precautions to prevent the release of pathogens that it is studying. This suspension of the sub-recipient does not affect the remainder of your grant assuming that no grant funds are provided to WIV following receipt of this email during the period of suspension.

From: Lauer, Michael (NIH/OD) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=90FE9CAE30C64CFBB67ABD568E882796-LAUERM]
Sent: 5/26/2020 9:58:16 AM
To: Tabak, Lawrence (NIH/OD) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=02e22836b5ff4e9988e3770cfc7ee770-tabakl]
CC: Lauer, Michael (NIH/OD) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=90fe9cae30c64cfbb67abd568e882796-lauerm]; Allen-Gifford, Patrice (NIH/OD) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=67262490d6d441b48efec1aff0700250-allengiffor]
Subject: FW: EcoHealth Alliance Incomings
Attachments: 1a Letter to Dr. Collins from The American Association of Immunologists.May 20, 2020.pdf; RE: Question about CBS report of a terminated research grant; 1a IDSA-HIVMA-ASTMH-PIDS EcoHealth Alliance grant_Final.pdf; 29 Organizations and over 300 scientists sign a letter demanding NIH re-fund EcoHealth Alliance; 1 Letter to Secretary Azar.pdf; EcoHealth Response.doc; nobellettergrant.pdf

Hi Larry – I see that the Nobel letter is on the agenda for ExecComm this morning. Patrice has picked up other letters along the same line.

Patrice also kindly drafted a response (second to last attachment) which I think makes sense.

Many thanks, Mike

From: "Lauer, Michael (NIH/OD) [E]" (b) (6)
Date: Friday, May 22, 2020 at 11:39 AM
To: "Tabak, Lawrence (NIH/OD) [E]" (b) (6)
Cc: "Lauer, Michael (NIH/OD) [E]" (b) (6), "Allen-Gifford, Patrice (NIH/OD) [E]" (b) (6), "Black, Jodi (NIH/OD) [E]" (b) (6)
Subject: FW: EcoHealth Alliance Incomings

Hi Larry – with many thanks to Patrice, we are getting more letters about EcoHealth Alliance grant. I'll discuss with you at our 1:1 later today.

Best, Mike

From: "Allen-Gifford, Patrice (NIH/OD) [E]" (b) (6)
Date: Friday, May 22, 2020 at 11:35 AM
To: "Lauer, Michael (NIH/OD) [E]" (b) (6)
Cc: "Pollock, Rachel (NIH/OD) [E]" (b) (6)
Subject: FW: EcoHealth Alliance Incomings

Hi Mike,

I just learned this morning that we have several letters on this, some from significant organizations (examples attached). I think I should share these with Larry – unless you prefer to do so in the course of your follow up conversation with him. Will you let us know please if after you talk with Larry, there are changes to the draft we received (attached) to clear?

Thank you,
Patrice

The AMERICAN ASSOCIATION of
IMMUNOLOGISTS



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M. Michele Hogan, Ph.D.

May 20, 2020

Francis S. Collins, M.D., Ph.D.
Director, National Institutes of Health
1 Center Drive, Building 1, Room 126
Bethesda, MD 20814

Dear Dr. Collins:

We are writing on behalf of The American Association of Immunologists (AAI), the nation's largest professional association of research scientists and clinicians who are dedicated to studying the immune system. As you know, many of our members are deeply immersed in research that may lead to needed vaccines and treatments for COVID-19. This research and development, while potentially lifesaving during this pandemic, will no doubt also help prepare our nation and the world for future pandemics.

We were concerned, therefore, to learn of a decision by the National Institutes of Health (NIH) to revoke grant funding for the EcoHealth Alliance project entitled, "Understanding the Risk of Bat Coronavirus Emergence." As scientists who support merit-based peer review, we believe it is important for NIH to explain why this grant – which appears to fund research of great relevance to the COVID-19 pandemic – was abruptly terminated. While we understand there could be legitimate reasons for this action, the NIH response has been unsatisfactory. According to NPR, the email NIH sent to EcoHealth Alliance President Peter Daszak, Ph.D., informed him that, "at this time NIH does not believe the current project outcomes align with the program goals and agency priorities." NIH subsequently refused to answer questions regarding this grant termination or whether NIH had taken similar actions previously. This response is both confusing and troubling. Your explanation could reinforce confidence in the NIH grant review system at a time when many are concerned that world and national events may be politicizing the science we need the most. We support the request made in a community letter organized by our colleagues at the American Society for Biochemistry and Molecular Biology (ASBMB) for a full explanation of the reasoning for this grant termination.

AAI greatly appreciates your ongoing leadership and support for the nation's medical researchers and remains ready to assist you in these most challenging times.

Sincerely,

A handwritten signature in black ink, appearing to read 'J. M. Boss'.

Jeremy M. Boss, Ph.D.
President

A handwritten signature in black ink, appearing to read 'Ross M. Kedl'.

Ross M. Kedl, Ph.D.
Chair, AAI Committee
on Public Affairs

A handwritten signature in black ink, appearing to read 'M. Michele Hogan'.

M. Michele Hogan, Ph.D.
Executive Director

From: Calin-Jageman, Robert [rcalinjageman@dom.edu]
Sent: 5/12/2020 7:35:43 PM
To: Collins, Francis (NIH/OD) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=410e1ca313f44ced9938e50d2ff0b6c2-collinsf]
Subject: RE: Question about CBS report of a terminated research grant

Director Collins,

I recently saw a CBS report claiming that an NIH research grant held by Dr. Peter Daszak and the Eco Health Alliance has been unexpectedly terminated (<https://www.cbsnews.com/news/trump-administration-coronavirus-vaccine-researcher-covid-19-cure-60-minutes/>).

I haven't been able to find an official NIH response or explanation related to this report. But did find in the NIH reporter a grant held by Dr. Daszak and the Eco Health Alliance that shows an unusual end date that is less than 1 year from the approval data (see below)

Could you direct me to the NIH's response or explanation for the situation? I'd like to know if this grant (or another held by these researchers) was terminated before the date initially specified in the award letter. And if so, I'd like to know more about the process that led to the early termination. If there's a better contact person, I'd be happy to be directed to them.

Thanks,

Bob

Project Information

CRD141517544-06

Project 1 of 28

PI PROFILE LINKS

DESCRIPTION	DETAILS	HISTORY	SUBPROJECTS	DEVELOPMENT	SEARCH PROJECTS WITH	LINKS	NEWS AND MORE						
<p>Project Number: 2R01AI10944-06</p> <p>Title: UNDERSTANDING THE RISK OF BAT CORONAVIRUS EMERGENCE</p> <p>Contact PI / Project Leader Information: Program Official Information: Other PI Information: </p> <p>Name: FRANCIS COLLINS</p> <p>Email: Click to view Contact PI / Project Leader</p> <p>Name: STEPHANIE HUNG</p> <p>Email: Click to view Contact PI / Project Leader</p> <p>Other PI Information: </p> <p>Organization: ECHOHEALTH ALLIANCE, INC.</p> <p>Department Type/ Organization Type: University</p> <p>Congressional District: State Code: NY District: 10</p> <p>Other Information:</p> <p>PIA: 01/10/2016</p> <p>Study Section: Clinical Research and Public Health of Infectious Diseases</p> <p>Current Study Section of PI: 01</p> <p>Recent Year: 2019 Award Notice Date: 24-JUL-2019</p> <p>Administering Institute or Centers: NATIONAL INSTITUTE OF ALLERGY AND INFECTIOUS DISEASES</p> <p>Project Funding Information 2019:</p> <p>Total Funding: \$282,181 Direct Costs: \$242,690 Indirect Costs: \$39,490</p> <table border="1"><thead><tr><th>Year</th><th>Funding IC</th><th>PI Total Credits IC</th></tr></thead><tbody><tr><td>2019</td><td>NATIONAL INSTITUTE OF ALLERGY AND INFECTIOUS DISEASES</td><td>\$282,181</td></tr></tbody></table>								Year	Funding IC	PI Total Credits IC	2019	NATIONAL INSTITUTE OF ALLERGY AND INFECTIOUS DISEASES	\$282,181
Year	Funding IC	PI Total Credits IC											
2019	NATIONAL INSTITUTE OF ALLERGY AND INFECTIOUS DISEASES	\$282,181											

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Robert Calin-Jageman
Professor, Psychology
Neuroscience Program Director
Dominican University
Parmer 210
7900 West Division
River Forest, IL 60305

rcalinjageman@dom.edu

708.524.6581

<http://calin-jageman.net>



Shameless Self-Promotion: *Introduction to the New Statistics* is the first statistics textbook to focus on Open Science and the New Statistics. Instructors can obtain a free desk copy here: <https://www.routledge.com/resources/deskcopy>. Or, [order on Amazon](#).



May 11, 2020

President Donald J. Trump
The White House
1600 Pennsylvania Ave. NW
Washington, DC 20500

Dear President Trump:

We write on behalf of the Infectious Diseases Society of America (IDSA), the HIV Medicine Association (HIVMA), American Society of Tropical Medicine and Hygiene (ASTMH), and the Pediatric Infectious Diseases Society of America (PIDS) to raise serious concerns regarding what appears to have been political interference in the scientific process with the termination of an EcoHealth Alliance grant that included a partnership with the Wuhan Institute of Virology (WIV).


Our organizations represent physicians, scientists and other healthcare professionals committed to infectious diseases, pediatric infectious diseases, tropical medicine, and global health. We were dismayed to learn about the termination of the National Institutes of Health (NIH) grant supporting an important international collaboration with WIV studying the transmission of coronaviruses from bats to humans, microbial genetics, and drug and vaccine development. Such studies are critical to understand the viruses, their transmission, and approaches for prevention and treatment of this dangerous illness. As of May 11, the current SARS-CoV-2 pandemic has resulted in more than 284,628 deaths globally, including more than 80,087 deaths in the U.S.

The grant from the NIH National Institute of Allergy and Infectious Diseases was in its sixth year and was renewed in 2019 for five years through the NIH peer review process, which is the gold standard for identifying and supporting the most promising biomedical research without bias. Basic research completed under the grant has been critical to the evaluation of remdesivir as a treatment for COVID-19, the first drug receiving FDA Emergency Use Authorization to treat hospitalized patients. The ongoing work of the Alliance has become more important than ever to help prevent future coronavirus pandemics. Furthermore, the NIH has not provided a legitimate cause for terminating the EcoHealth Alliance grant, which was given superb ratings in its renewal evaluation. There is no scientific evidence that SARS-CoV-2 originated at WIV or any other laboratory, and the NIH has not responded to inquiries asking for additional clarification and rationale.

An independent and impartial scientific process and robust support for global research collaborations have been indispensable in making the United States the world leader in biomedical research and establishing the NIH as the world's premier medical research enterprise. Continued independent and impartial processes are absolutely essential to the successful development of effective treatments, vaccines, and cures for many infectious diseases and the epidemics and pandemics they can cause. This includes SARS-CoV-2, the cause of severe COVID-19 disease.

We urge immediate reconsideration of the termination of the EcoHealth Alliance grant, with assurances that politics will not influence the scientific process. A failure to set strong boundaries between politics and science will set back future medical discoveries for years to come and leave the U.S. poorly prepared to respond to current and future pandemics. health crisis. If you have questions or require additional information, please do not hesitate to contact Amanda Jezek, IDSA Senior Vice President for Public Policy and Government Relations at ajezek@idsociety.org, or Andrea Weddle, HIVMA Executive Director at aweddle@hivma.org.

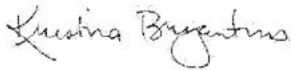
Sincerely,



Thomas M. File, Jr., MD, MSc
President, IDSA



Judith Feinberg, MD
Chair, HIVMA



Kristina Bryant, MD, FPIDS
President, PIDS



Karen A. Goraleski
CEO, ASTMH

CC: Francis S. Collins, MD, PhD, Director, NIH
Anthony S. Fauci, MD, Director, NIH's NIAID

From: Joseph Osmundson [jo58@nyu.edu]
Sent: 5/11/2020 8:13:02 PM
To: Collins, Francis (NIH/OD) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=410e1ca313f44ced9938e50d2ff0b6c2-collinsf]
Subject: 29 Organizations and over 300 scientists sign a letter demanding NIH re-fund EcoHealth Alliance
Attachments: Coronavirus Grant Cancellation Protest SIGN ON LETTER.pdf

Dr. Collins,

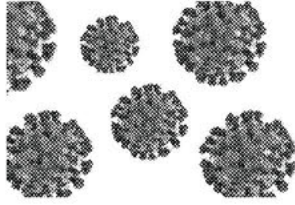
Today, the COVID-19 Working Group–NY (CWG-NY) is sending a letter, signed by 29 organizations, more than 300 scientists, physicians, and community health advocates, to Dr. Francis Collins, Director of the US National Institutes of Health (NIH), Dr. Anthony Fauci, Director of the National Institute for Allergy and Infectious Diseases (NIAID), and Alex Azar, Secretary of Health and Human Services, along with officials on the House Oversight Committee and the Senate Health Committee.

The letter expresses outrage at the canceling of a major R01 grant to the EcoHealth Alliance, an international collaboration that studies coronaviruses in bats to determine how they may evolve to transmit in human populations. **We demand immediate reinstatement of the R01 to EcoHealth Alliance.**

Signatories of the letter – which include scientists from many top research institutions across the US including Harvard, Yale, Stanford, University of Michigan, University of Pennsylvania, University of Wisconsin, University of Florida, University of California San Francisco, University of Washington, AstraZeneca, and Columbia University – called for immediate release of the NIH R01 funds to EcoHealth and for an investigation into the decision-making process that canceled the grant funding in the first place.

Best,

Joseph Osmundson
COVID-19 Working Group NY



**COVID-19 Working Group
New York City**
www.covid-19workinggroupnyc.org

The NIH must not cancel awarded grants for purely political reasons

On May 1, 2020, *Science Magazine* reported the cancelation of a major grant to the EcoHealth Alliance, an international collaboration studying how coronaviruses transmitting in bats can evolve to spread in human populations. Based on emails reviewed by Science, this decision appears to be directly related to the Trump administration's belief in the conspiracy theory that the SARS-CoV-2 virus, the cause of COVID-19, was purposefully or accidentally released from the Wuhan Institute of Virology. The Wuhan Institute of Virology was a participant in the EcoHealth Alliance grant that was canceled.

We ask for the immediate reinstatement of the grant to EcoHealth Alliance and for a congressional investigation into the decision making process at the NIH that canceled the funding in the first place. A vibrant community of independent scientists is crucial to a functioning democracy and will be the first line of defense against another crisis that costs as many lives as the COVID-19 pandemic.

To be clear, there is no evidence of human engineering of the SARS-CoV-2 virus nor of accidental release of a laboratory viral strain. Phylogenetic analyses clearly support the evolution of the SARS-CoV-2 virus from bats in the wild.

We write in strong condemnation of political interference in scientific grantmaking. The NIH has a long and well-established protocol for scoring and funding grants, including decisions on scientific merit, productivity, and the import of research by large panels of expert scientists. During the course of an NIH grant, alterations in funding are incredibly disruptive to ongoing research projects, many of which span years if not decades.

Cancelation of a grant mid-term will disrupt the progress of research in how coronaviruses can evolve to infect humans, the exact process that birthed SARS-CoV-2, leading to hundreds of thousands of deaths worldwide. This research was always critical given the possibility of a coronavirus pandemic; it is now absolutely essential to understand how this crisis originated and to avoid another pandemic in the

future. Bowing to conspiracy theories in this time of crisis to prevent necessary research may, therefore, be sowing the seeds of another crisis in the future.

In fact, the grant to EcoHealth Alliance provided critical data – including the sequences of closely related bat coronaviruses to SARS-CoV-2 – that both helped identify the origin of COVID-19 and identified remdesivir as a potential drug for the disease, allowing it to be rapidly moved into clinical trials. It is absurd and horrifying that the Trump administration would shut down a research program that led to the first promising treatment for COVID-19.

Beyond the critical importance of the research the NIH defunded, political interference in grantmaking is a disturbing trend that would allow politicians to effectively squash research that does not align with their political desires. Industry influence in research, the silencing of climate science, and long term harm of American science in the global climate become increasingly likely if politicians can easily meddle in grantmaking. We must stand united as a community of clinicians, scientists, activists, and citizens to demand the best – most transparent – scientific decision making process in this moment of crisis, and always.

Signed:

Organizations Signed On:

COVID-19 Working Group, New York City
The PrEP4All Collaboration
AVAC – AIDS Vaccine Advocacy Coalition
ICAP at Columbia University
ACT-UP
AIDS Foundation Chicago
Universities Allied for Essential Medicines (UAEM)
Center for Science in the Public Interest
Equity Forward
National Black Leadership Commission on Health
Association of Nurses in AIDS Care
Progressive Doctors
Black AIDS Institute
Latino Commission on AIDS
Treatment Action Group
AIDS Action Baltimore

TPAN – Test Positive Aware Network
HIV + Aging Research Project – Palm Springs
HealthxDesign
Georgia AIDS Coalition
Climate Health Now
National Working Positive Coalition
Prevention Access Campaign
The Well Project
Map Data Science
American Academy of HIV Medicine
GCCDC – Gowanus Canal Community Development Corporation
Bannon Consulting Services

Individuals Signed On:

David Ho, Director, Aaron Diamond AIDS Research Center of Columbia University
Vagelos College of Physicians and Surgeons
Gregg Gonsalves, Yale School of Public Health
Sten H. Vermund, Yale School of Public Health
Martin S. Hirsch, Harvard University
Seth Darst, The Rockefeller University
Anthony Eller, Yale AIDS Program
A. David Paltiel, Yale School of Public Health
Ted Cohen, Yale School of Public Health
Nathan Grubaugh, Yale School of Public Health
Robert Heimer, Yale School of Public Health
Taiga Christie, Yale School of Public Health
Eli Fenichel, Yale University
Samy Galvez, Yale University
David Vlahov, Yale University
Nathan Price, Yale University
Walther Mothes, Yale University
Nancy Stanwood, Yale University
Frederick L. Altice, Yale University School of Medicine
Akiko Iwasaki, Yale University School of Medicine
Angela L. Rasmussen, Columbia Mailman School of Public Health
Mady Hornig, Columbia University
Jacqueline Klopp, Columbia University
Sarah Lima, Columbia University Mailman School of Public Health
Maimuna S. Majumder, Boston Children's Hospital & Harvard Medical School
Donald Thea, Boston University School of Public Health

Jerry Avorn, Harvard Medical School
Julia Marcus, Harvard Medical School
Aaron Kesselheim, Harvard Medical School/Brigham and Women's Hospital
Ameet Sarpatwari, Brigham & Women's Hospital/Harvard Medical School
Robyn Lee, Harvard School of Public Health
Keletso Makofane, Harvard University
Bryan Terrazas, Harvard University
Grace Mosley, Icahn School of Medicine at Mount Sinai
Alice O Kamphorst, Icahn School of Medicine at Mount Sinai
AMIR HOROWITZ, Icahn School of Medicine at Mount Sinai
Miriam Merad , Icahn School of Medicine at Mount Sinai
Thomas Marron, Tisch Cancer Institute - Icahn School of Medicine at Mount Sinai
Duncan Maru, Icahn School of Medicine at Mount Sinai
Konstantina Alexandropoulos , Icahn School of Medicine at Mount Sinai
Stephen A Lauer, Johns Hopkins Bloomberg School of Public Health
David D Celentano , Johns Hopkins Bloomberg School of Public Health
Nicole Carter, Johns Hopkins School of Medicine
Sarah Horst, Johns Hopkins University
Edward Banigan, Massachusetts Institute of Technology
Mila González , Columbia University/ NewYork Presbyterian Hospital
Meredith Whittaker, Co-director, AI Now Institute at NYU
Joseph Osmundson, New York University
ENRIQUE R ROJAS, New York University
Brendan Parent, New York University
Michael Purugganan, New York University
Hayley Belli, New York University
ESTEBAN ORLANDO MAZZONI, New York University
Carol Shoshkes Reiss, New York University
Arthur L Caplan, NYU Grossman School of Medicine
Alison Bateman-House, NYU Grossman School of Medicine
Kelly Folkers, NYU Grossman School of Medicine
Aisha Langford, NYU Grossman School of Medicine
Jamie Webb, NYU Grossman School of Medicine Division of Medical Ethics
Tarlise Townsend, NYU Grossman School of Medicine, Department of Population Health
Christopher J. Morten, NYU School of Law
Bernardo S Reis, The Rockefeller University
Lisa Pomeranz, The Rockefeller University
Simin Liu, The Rockefeller University
Daniel Mucida, The Rockefeller University
Stefan Oliver, Stanford University
Kelsey Logas, Stanford University
Hannah Frank, Stanford University
Veronica Rogers Everett, UMass-Amherst

Diana Taft, UC Davis
Kishana Taylor, UC Davis
Steffanie Strathdee, UC San Diego
Carol L. Brosgart, MD, UCSF
Jennifer Thomas , UCSF
Cesar Augusto Lopez, UNC Chapel Hill
Catherine Eliza Kehl, UNC Chapel Hill
Joseph M McCune, Bill & Melinda Gates Foundation
Christopher Robertson, University of Arizona
Nina A Sokolov, University of California, Berkeley
BethAnn McLaughlin, Academic Decency League
Sarah Tuttle, University of Washington
Kathleen J Millen, University of Washington
Lauren Dunnington, University of Washington
Colm Atkins, Rutgers University
DANA WOELL, Rutgers University
Catherine M Herzog, Penn State University
Jayme Morris, Cooper University Hospital
Lukasz Kowalik, Cornell University
Matthew Herder, Dalhousie University, Health Law Institute
Jennifer Lai, Dartmouth College
Lisa Kearns, Division of Medical Ethics NYU Grossman School of Medicine
Heidi Sinclair, Doctors for America; American College of Physicians; American Geriatric Society
Kendra Phelps, EcoHealth Alliance
Kathrine Meyers, Aaron Diamond AIDS Research Center of Columbia University Vagelos
College of Physicians and Surgeons
Dave Gold, Global Health Strategies
Peter Barfuss, École des Ponts ParisTech
Elisa Mandell Keller, EMK Strategic Consulting
Olivier Pernet, EnViro International Laboratories
Susan Tsang, American Museum of Natural History
Jonathan Silver, AstraZeneca
Alexi Grousis-Henderson, Audubon
Dr Alison Cameron, Bangor University
Paul Henry Tremblay, Best Buy Technology
Kimberly Piper, Beth Israel Deaconess Medical Center
Donald Thea, Boston University School of Public Health
Ameet Sarpatwari, Brigham & Women's Hospital/Harvard Medical School
Marcello Graziano, Central Michigan University
M. Drew LaMar, College of William and Mary
Graham J McDougall Jr, Florida State University College of Nursing
Jeffrey Levi, George Washington University
Adam R. Ward, George Washington University, Milken Institute School of Public Health

Kristin Harper , Harper Health & Science Communications LLC
Simon Collins, HIV i-Base
Isaiah Sumner, James Madison University
Bruce Jennison , JENNISONFYI
Emmy Killett, Jet Propulsion Lab
Jennifer Chang, Kaiser Permanente at Los Angeles Medical Center
Tara C Smith, Kent State University
Kimberly Stone, Kimberly C Stone PA
Lorna B. Hall, La Cheim Behavioral Health
Stephan R. Glick, Lehigh Valley Physician Group
Jeremy P. Kamil, LSU Health Sciences Center
Meredith Clement, LSU Health Sciences Center
Lydia Wills, Lydia Wills LLC
Amy H Fitzpatrick, Marine Institute
Tony Mistretta, Medical Management
Wendell Bell, Minnesota State Bar Assn.
Ellyse A. Vitiello, Morningside Monthly Meeting (Quakers)
Greta J. Quintin, Morristown Emergency Services
Navin Pokala, New York Institute of Technology (NYIT)
Mark Cutis, Nihon Phoenix Advisors
Leo Beletsky, Northeastern University
Katrina Kuh, Pace Law School
Aaron Steiner, Pace University
Michelle Fearon, University of Michigan
John Dennehy, Queens College CUNY
Jennifer C Fish, MD, Santa Rosa Community Health
Michael W. Busch, SETI Institute
Sofia P Singer, Seven Directions
Princess McLawrence-Manning, SMART, NYCWC
Sanjeev K Sriram, Social Security Works
Danielle N. Lee, Southern Illinois University Edwardsville
Lillian M Davalos, Stony Brook University
Stephen B Baines, Stony Brook University
Frances Ryan, Commission for Persons with disAbilities
Matt Sharp, The Reunion Project
Thomas St. Julien Lankiewicz, The University of California, Santa Barbara
Arthur R. James, Three Peas in a Pod
Amelia Gifford, Toxics Use Reduction Institute
Perry Mitchell, Truckee Meadows Community College
Lawrence Hunter, University of Colorado School of Medicine
Blair T. Johnson, University of Connecticut
Jennifer L. Hoffman, University of Denver

Patrick Kearns, University of Edinburgh Wellcome Lecturer & Harvard University Frank Knox Fellow

Michael Riley II, University of Florida

Adria LeBoeuf, University of Fribourg

Jason Kindrachuk, University of Manitoba

Michael C. Bazaco, University of Maryland

Kristina Elizabeth Atanasoff, University of Maryland, Baltimore County

Monique, University of Michigan

Chanda Prescod-Weinstein, University of New Hampshire

Matthew Martinez, University of Pennsylvania

Robert E. Marc, University of Utah School of Medicine

Emily Bruce, University of Vermont

Autumn Kent, University of Wisconsin

Kathryn Anderson, UW School of Medicine

Face Pickens, Virginia Commonwealth University

Stephanie Hart, Virginia Commonwealth University

Mary Loos, Virginia Commonwealth University

Zachary Pincus, Washington University in St. Louis

John Moore, Weill Cornell School of Medicine

Judith Feinberg, West Virginia University

Linda Grabill, Western Washington University

C. Virginia Fields

Holly H Balogh

Jean Webner

Charles Franchino

Saskia Popescu

Jennifer Taylor

Jere J Lepley

Lydia McKay

Brian Nord

Kim Wallace

Zoe Schroeder

Mingjane Wu

Sureka Gattu

Arthur Smith

Sara Bazaco

Tatiana Rodriguez

Susan Miller

Maureen E Hoatlin

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Laura Diamondstone

Leslie Carroll
Dorothy Gordon
Leroy Nunez
Malaya Fletcher
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Linda van der Wal
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Denise McIsaac
Alexandra Sundell
Minda Sarna
Suzanne Vogel
Tracy Wells
Amy Reese
Bella Berly
Mike Berly
Robert Goodwin
Michael Sheehy
Brianne Barker
Angela Diuble
Barbara Kolber
Nathan Myers
Eric Shattuck
Amy Gregg
Douglas Buchanan
Barbara J Casey
Mary Beth Bowerman
Nicolle Bruett Shanman
Iris Nathan
Jake Scott
Clifford Johnson
Dyan Traynor
Wendy Wifler
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Tim Mackey
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Carly Harrison
K Barrett
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Ysabel Beatrice Floresca
LIPI ROY
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Gregory G. Sarno
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Karyn Pomerantz
Keshet Ronen
Danielle Francois
Jeff Sheehy
Rachel Barr
Ann Hartzler
Arturo Garcia Jr
Natan Vega Potler
Ben Stoner-Duncan
Daniel Lugassy
Kate Mastroianni
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Murray Penner
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Grant Leavins
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PATRICK OLEARY
Racquel Kim Sherwood
Gláucia Furtado
Michael O'Quinn
Siobhan Cooke
Jaclyn Novatt
Jhilya Mayas
Caitlyn Passaretti
W. David Hardy
Amanda Ramsdell
Laura Raffield
Kimberleigh Smith
Barbara McCormack
Toph Allen (Christopher Allen)



May 12, 2020

The Honorable Alex Azar
Secretary
U.S. Department of Health and Human Services
200 Independence Avenue, S.W.
Washington, D.C. 20201

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*on leave of absence

241 18th Street South
Suite 501
Arlington, VA 22202

P 703.739.2577

F 703.739.2372

E info@researchamerica.org

Dear Secretary Azar,

On behalf of Research!America, I am writing to request that you clarify the decision to end National Institutes of Health (NIH) grant funding for the EcoHealth Alliance project entitled "Understanding the Risk of Bat Coronavirus Emergence." We believe the American people, whose tax dollars enable federal grants for life-saving research and other national priorities, deserve more clarity on the basis of this decision than has thus far been provided.

The abrupt termination of this grant has generated concern, not only because of the relevance of this research to COVID-19 and future pandemics, but because the lack of transparency surrounding the termination creates uncertainty about the integrity of federal grant-making.

We certainly appreciate there may be facets of this decision that cannot be made public, but given the high degree of integrity expected of the NIH extramural grant program, we urge the Administration to bring as much information to light as possible surrounding this decision.

We respectfully request that you provide the American public with insight into the basis of the decision to end funding for the EcoHealth grant and how this decision conforms to the circumstances in which grant terminations are permitted under the United States Code of Federal Regulations.

We are grateful for your leadership during this profoundly challenging period in our nation's history, and appreciate your consideration of this request.

Sincerely,

The Honorable Michael N. Castle
Chair, Member of Congress 1993-2011

Mary Woolley
President and CEO



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

National Institutes of Health
Bethesda, Maryland 20892

(b) (5)

77 US Nobel Laureates in Science

May 21, 2020

Secretary Azar and Director Collins:

The 77 signatories of this letter, American Nobel Laureates in Physiology or Medicine, Chemistry, and Physics, are gravely concerned about the recent cancellation of a grant from the National Institutes of Health (NIH) to Dr. Peter Daszak at the EcoHealth Alliance in New York. We believe that this action sets a dangerous precedent by interfering in the conduct of science and jeopardizes public trust in the process of awarding federal funds for research.

For many years, Dr. Daszak and his colleagues have been conducting highly regarded, NIH-supported research on coronaviruses and other infectious agents, focusing on the transmission of these viruses from animal hosts to human beings. Their work depends on productive collaborations with scientists in other countries, including scientists in Wuhan, China, where the current pandemic caused by a novel coronavirus arose. Now is precisely the time when we need to support this kind of research if we aim to control the pandemic and prevent subsequent ones.

As has now been widely reported, the grant to the EcoHealth Alliance was abruptly terminated by NIH on April 24, 2020, just a few days after President Trump responded to a question from a reporter who erroneously claimed that the grant awarded millions of dollars to investigators in Wuhan. Despite the misrepresentation of Dr. Daszak's grant, despite the high relevance of the studies to the current pandemic, and despite the very high priority score that his application for renewal had received during peer review, the NIH informed Dr. Daszak and his colleagues that the grant was being terminated because "NIH does not believe that the current project outcomes align with the program goals and agency priorities." Such explanations are preposterous under the circumstances.

We are scientists who have devoted our careers to research, both in medical and related scientific disciplines that bear on the overall health and well-being of society, as well as fundamental scientific research, much of it supported by NIH and other federal agencies. We take pride in our nation's widely admired system for allocating funds based on expert review and public health needs. The abrupt revoking of the award to Dr. Daszak contravenes these basic tenets and deprives the nation and the world of highly regarded science that could help control one of the greatest health crises in modern history and those that may arise in the future.

We ask that you act urgently to conduct and release a thorough review of the actions that led to the decision to terminate the grant, and that, following this review, you take appropriate steps to rectify the injustices that may have been committed in revoking it.

Peter Agre	Chemistry	2003	James P. Allison	Medicine	2018
Sidney Altman	Chemistry	1989	Frances H. Arnold	Chemistry	2018
David Baltimore	Medicine	1975	Barry Clark Barish	Physics	2017
Paul Berg	Chemistry	1980	J. Michael Bishop	Medicine	1989
Elizabeth H. Blackburn	Medicine	2009	Michael S. Brown	Medicine	1985
William C. Campbell	Medicine	2015	Mario R. Capecchi	Medicine	2007
Thomas R. Cech	Chemistry	1989	Martin Chalfie	Chemistry	2008
Steven Chu	Physics	1997	Elias James Corey	Chemistry	1990
Robert F. Curl Jr.	Chemistry	1996	Johann Deisenhofer	Chemistry	1988
Andrew Z. Fire	Medicine	2006	Edmond H. Fischer	Medicine	1992
Joachim Frank	Chemistry	2017	Jerome I. Friedman	Physics	1990
Walter Gilbert	Chemistry	1980	Sheldon Glashow	Physics	1979
Joseph L. Goldstein	Medicine	1985	Carol W. Greider	Medicine	2009
David J. Gross	Physics	2004	Roger Guillemin	Medicine	1977
Leland H. Hartwell	Medicine	2001	Dudley R. Herschbach	Chemistry	1986
Roald Hoffmann	Chemistry	1981	H. Robert Horvitz	Medicine	2002
Louis J. Ignarro	Medicine	1998	William G. Kaelin Jr.	Medicine	2019
Eric R. Kandel	Medicine	2000	Wolfgang Ketterle	Physics	2001
Brian K. Kobilka	Chemistry	2012	Roger D. Kornberg	Chemistry	2006
Robert J. Lefkowitz	Chemistry	2012	Anthony J. Leggett	Physics	2003
Michael Levitt	Chemistry	2013	Roderick MacKinnon	Chemistry	2003
John C. Mather	Physics	2006	Craig C. Mello	Medicine	2006
William E. Moerner	Chemistry	2014	Mario J. Molina	Chemistry	1995
Ferid Murad	Medicine	1998	Douglas D. Osheroff	Physics	1996

James Peebles	Physics	2019	Saul Perlmutter	Physics	2011
William D. Phillips	Physics	1997	H. David Politzer	Physics	2004
Sir Richard J. Roberts	Medicine	1993	Michael Rosbash	Medicine	2017
James E. Rothman	Medicine	2013	Randy W. Schekman	Medicine	2013
Richard R. Schrock	Chemistry	2005	Gregg L. Semenza	Medicine	2019
Phillip A. Sharp	Medicine	1993	Hamilton O. Smith	Medicine	1978
George P. Smith	Chemistry	2018	Horst L. Stormer	Physics	1998
Thomas C. Sudhof	Medicine	2013	Jack W. Szostak	Medicine	2009
Joseph H. Taylor Jr.	Physics	1993	Kip Stephen Thorne	Physics	2017
Susumu Tonegawa	Medicine	1987	Daniel C. Tsui	Physics	1998
Harold E. Varmus	Medicine	1989	Steve Weinberg	Physics	1979
Rainer Weiss	Physics	2017	Carl E. Wieman	Physics	2001
Eric F. Wieschaus	Medicine	1995	Torsten N. Wiesel	Medicine	1981
Frank Wilczek	Physics	2004	Robert Woodrow Wilson	Physics	1978
Michael W. Young	Medicine	2017			

From: Lauer, Michael (NIH/OD) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=90FE9CAE30C64CFBB67ABD568E882796-LAUERM]
Sent: 5/22/2020 10:04:16 PM
To: Jacobs, Anna (NIH/OD) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=e76eeb11df9a4024b53864ffac4c4c56-jacobsa]
CC: Lauer, Michael (NIH/OD) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=90fe9cae30c64cfbb67abd568e882796-lauerm]; Black, Jodi (NIH/OD) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=782921b9f08249b59a582e93f6963f5f-blackj]; Lankford, David (NIH/OD) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=4f29a9bef672409d967e3aa5fb36e96a-lankford]
Subject: FW: EcoHealth Alliance re Termination of NIH Research Grant R01 AI 110964
Attachments: EcoHealth Alliance First-Level Appeal of NIH Grant Termination, dated May 22, 2020 (R01 AI 110964) (02103179xA1AB5).PDF

Hi Anna— at some point we should discuss this.

Many thanks, Mike

From: "Matthew R.Torsiello" (b) (6)
Date: Friday, May 22, 2020 at 5:12 PM
To: "Lauer, Michael (NIH/OD) [E]" (b) (6)
Cc: "Linde, Emily (NIH/NIAID) [E]" (b) (6), "Stemmy, Erik (NIH/NIAID) [E]" (b) (6), "Andrew N. Krinsky" (b) (6), "Nels T. Lippert" (b) (6), "Black, Jodi (NIH/OD) [E]" (b) (6), "Erbelding, Emily (NIH/NIAID) [E]" (b) (6), "Bulls, Michelle G. (NIH/OD) [E]" (b) (6), Peter Daszak (b) (6), Aleksei Chmura (b) (6)
Subject: EcoHealth Alliance re Termination of NIH Research Grant R01 AI 110964

Dr. Lauer:

Please see the attached letter from Andrew N. Krinsky on behalf of EcoHealth Alliance, Inc., pursuant to NIH Grants Policy Statement Section 8.7, regarding the decision by NIAID to terminate NIH Research Grant R01 AI 110964 on or about April 24, 2020.

Thank you.

Best,
Matthew R. Torsiello



Matthew R.Torsiello | Associate

D: (b) (6) | F: 212-216-8001

(b) (6) | Bio

Tarter Krinsky & Drogin LLP
1350 Broadway | New York | NY | 10018
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May 22, 2020

Via Email, Certified Mail, & FedEx

(b) (6)

Michael S. Lauer, MD
NIH Deputy Director for Extramural Research
National Institutes of Health
National Institute of Allergy and Infectious Diseases
1 Center Drive, Building 1, Room 144
Bethesda, Maryland 20892

Re: Termination of NIH Grant 2R01 AI 110964-6

Dear Dr. Lauer:

This firm represents EcoHealth Alliance, Inc. (“EcoHealth Alliance”) with regard to the post-award decision by the National Institute of Allergy and Infectious Diseases (“NIAID”), an Institute within the National Institute of Health (“NIH”), under the Department of Health and Human Services (“HHS”), to terminate the project *Understanding the Risk of Bat Coronavirus Emergence*, funded under grant R01 AI 110964, on April 24, 2020 (the “Termination”).

This letter, pursuant to NIH Grants Policy Statement Section 8.7 and 42 CFR 50, Subpart D, constitutes EcoHealth Alliance’s first-level appeal of the Termination, which was “for convenience.” As set forth in more detail below, the Termination is not authorized under the NIH Grants Policy Statement, arbitrary and capricious and an indefensible attack on public health and welfare given that it undermines a pivotal 10-year research project involving the origins, spread and threat of emerging bat coronaviruses during the peak of an unprecedented worldwide coronavirus pandemic. Accordingly, EcoHealth Alliance hereby demands that grant 2R01 AI 110964-6 be reinstated immediately.

BACKGROUND

A. EcoHealth Alliance

EcoHealth Alliance is a prominent New York-based nonprofit institution dedicated to protecting the health of people, animals, and the environment from emerging zoonotic diseases. For more than a decade, EcoHealth Alliance has been conducting cutting edge scientific research to identify hundreds of new coronaviruses (“CoVs”) in bats and to study the capacity of these viruses to infect human cells. The purpose of this research is to identify high risk populations so international actors can leverage their resources to address potential pandemics. In cooperation with a global network of over seventy partners, including academic institutions, intergovernmental

and governmental agencies, infectious disease surveillance laboratories, and other international and national organizations in over thirty countries, EcoHealth Alliance's work has led to numerous scientific papers published in high impact journals. These publications have been critical in raising awareness of the threat that CoVs pose to global health, the global economy, and U.S. National Security.

EcoHealth Alliance has a long history of successful cooperation with NIH including multiple Research Project Grant R01 awards. In particular, Peter Daszak, EcoHealth Alliance's President and Chief Scientist, has been the Principal Investigator on five multidisciplinary R01s. All of these projects used modeling, epidemiology, laboratory, and field science to test hypotheses on the emergence of wildlife-origin viral zoonoses, including SARS-CoV, the Nipah and Hendra viruses, Avian influenza, and other bat-origin viruses. EcoHealth Alliance, a 501(c)(3) organization, is unique in that it goes one step further by leveraging its research goals to create an alliance of international collaborators that can advocate for real-world changes to protect high risk populations.

Notably, in collaboration with virologists in China, EcoHealth Alliance isolated and characterized SARSr-CoVs from bats that use the same human host cell receptor (ACE2) as SARS-CoV. This work provided critical reagents and resources that have advanced scientific understanding of virus-host binding and contributed to vaccine development. For example, the genetic sequences of the bat viruses that EcoHealth Alliance discovered under its NIH research funding, which were published online (Genbank & GISAID), have been used to test the effectiveness of the drug Remdesivir against not only SARS-CoV, but also MERS, and other potentially zoonotic or pre-pandemic bat CoVs. Significantly, this type of testing can be performed without the need for viral cultures or shipping viruses internationally.

B. NIH Awards And Extends EcoHealth Alliance Research Grant R01 AI 110964

In 2014, NIH issued EcoHealth Alliance a five-year research award for the project *Understanding the Risk of Bat Coronavirus Emergence*, funded under grant R01 AI 110964 (the "Project"). EcoHealth Alliance received additional awards for the Project each year between 2015 and 2018. Between 2015 and 2019, the Project resulted in the publication of more than twenty papers.

In 2019, EcoHealth Alliance submitted a renewal application to NIH through NIAID to extend the Project period for an additional five years. Upon filing of its renewal application, the Project was ranked as an "extremely high priority" (in the top 3%) by NIAID during its external review process. In light of its success and the importance of EcoHealth Alliance's work, on July 24, 2019, NIH reauthorized grant R01 AI 110964 and increased EcoHealth Alliance's funding. EcoHealth Alliance was issued a notice of award in the amount of \$733,750.00 (the "2019 Award"). The notice of award also extended the Project period for an additional five years to 2024. A copy of the notice of award is attached hereto as Exhibit A.

C. EcoHealth Alliance Agrees Not To Fund The Wuhan Institute Of Virology

During the pendency of the Project, in December of 2019, China reported a cluster of cases of pneumonia in Wuhan, Hubei Province. It was later determined that the cause of this pneumonia

was a novel CoV, severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), causing coronavirus disease (COVID-19). Thereafter, SARS-CoV-2 spread to nearly every country throughout the world. In response, EcoHealth Alliance has prioritized its efforts in conducting research that will be integral to developing an effective strategy to combat SARS-CoV-2.

On April 19, 2020, Michael S. Lauer, MD, NIH Deputy Director for Extramural Research, sent a letter to EcoHealth Alliance on behalf of NIH regarding a laboratory in China, the Wuhan Institute of Virology (“WIV”). WIV was a prior sub-recipient of a small portion of the R01 AI 110964 grant funds. The letter stated that, given allegations that COVID-19 “was precipitated by the release from WIV of the coronavirus responsible for COVID-19”, NIH was pursuing suspension of WIV from participating in Federal programs. However, Mr. Lauer assured EcoHealth Alliance that “[t]his suspension of the sub-recipient does not affect the remainder of [EcoHealth Alliance’s] grant assuming that no grant funds are provided to WIV following receipt of this email during the period of suspension.” A copy of the letter is attached hereto as Exhibit B.

On April 21, 2020, Dr. Daszak of EcoHealth Alliance responded by email to Dr. Lauer stating that he could “categorically state that no funds from [sic] 2R01 AI 110964-6 have been sent to Wuhan Institute of Virology, nor has any contract been signed.” Dr. Daszak further represented that EcoHealth Alliance would comply with all NIAID requirements. Dr. Lauer acknowledged (1) that no monies from grant 2R01 AI 110964-6 had gone to WIV and no contract between EcoHealth Alliance and WIV had been signed and (2) EcoHealth Alliance’s agreement that it would not provide any funds to WIV until and unless directed otherwise by NIH. A copy of the email correspondence between NIH and EcoHealth Alliance is attached hereto as Exhibit C.

D. NIH Abruptly Terminates Research Grant 2R01 AI 110964-6 “For Convenience”

Notwithstanding NIH’s representation that suspension of WIV would not affect the remainder of EcoHealth Alliance’s 2019 Award, on April 24, 2020, NIH notified EcoHealth Alliance by letter that, effective immediately, the 2019 Award had been terminated by NIAID. The stated grounds for the Termination were: (1) convenience; (2) NIH’s discretion not to award a grant, or to award a grant at a particular funding level; and (3) NIH’s belief that the Project outcomes did not align with the program goals and agency priorities. A copy of the Termination is attached hereto as Exhibit D.

ARGUMENT

A. NIH Research Grants Are Not Subject To Termination For Convenience

“Termination for convenience” refers to the exercise of the government’s right to bring to an end the performance of all or part of the work provided for under a contract prior to the expiration of the contract “when it is in the Government’s interest” to do so. Federal agencies typically incorporate clauses in their procurement contracts which give them the right to terminate for convenience. Here, there is no clause in the terms and conditions applicable to the 2019 Award, or in the NIH Grants Policy Statement, that permits NIAID or NIH to issue a post-award decision to terminate a NIH research grant award “for convenience.”

Moreover, the unprecedented assertion by NIH that active research grants can be terminated “for convenience” during the subject budget period renders Section 8.5.2 of the NIH Grants Policy Statement meaningless. *See, e.g., Li v. Eddy*, 324 F.3d 1109, 1110 (9th Cir. 2003) (rejecting suggested statutory interpretation on the grounds that the interpretation ran squarely against the canon of construction that courts interpret statutes so as not to render any section meaningless). Section 8.5.2 of the NIH Grants Policy Statement governs, *inter alia*, modification or termination of an award for misconduct. If NIH grants were terminable for convenience, NIH could always choose to terminate for convenience to avoid (1) the “for cause” restriction on grant terminations and (2) the labor intensive task of enforcing compliance through disallowing costs, withholding further awards, or wholly suspending the grant, pending corrective action.

B. NIH’s Discretion Not To Award A Grant, Or To Award a Grant At A Particular Funding Level, Does Not Authorize A Post-Award Decision To Terminate

NIH’s discretion regarding the “decision not to award a grant, or to award a grant at a particular funding level” does not give NIH the authority to issue a post-award decision terminating a duly awarded grant during the budget period. This purported discretion, which is based on language in the last paragraph of NIH Grants Policy Statement Section 2.4.4, entitled *Disposition of Applications*, concerns NIH’s authority to reject incomplete or otherwise undesirable grant applications in the first instance only. The provisions of Section 2, generally, have no bearing on post-award decisions affecting duly approved grants for which specified funds have already been allocated. As the 2019 Grant in the amount of \$733,750.00 was awarded to EcoHealth Alliance on July 24, 2019, NIH’s authority to deny initial grant applications does not allow NIH to terminate the 2019 Grant.

C. The Research Goals Of EcoHealth Alliance And NIAID Are Virtually Identical

NIH’s contention that the Project’s outcomes do not align with the agency’s priorities is demonstrably false. First, the Project was ranked as “extremely high priority” on external review by NIAID less than nine months ago, before the discovery of SARS-CoV-2. Since this discovery, NIH has promulgated new grants seeking applicants to conduct research on the same issues covered by the Project and the 2019 Award.

In addition, there is substantial overlap between the four strategic research priorities on page 1 of NIAID’s Strategic Plan for COVID-19 Research, published April 22, 2020, and the three Specific Aims of the Project. Both NIAID and EcoHealth Alliance seek to: (1) improve fundamental knowledge of SARS-Cov-2; (2) develop methods to assess the rate of infection and disease incidence; (3) contribute to the development of an effective vaccine; and (4) increase public health preparedness. Copies of the Project’s Specific Aims and the NIAID Strategic Plan’s four strategic research priorities for COVID-19 research are attached hereto as Exhibit E.

D. There Is No Rational Basis To Terminate The 2019 Award For Cause

The grounds and procedures for suspension and termination of awards are specified in NIH Grants Policy Statement Section 8.5.2 and 45 CFR Parts 75.371 through 75.373. Notably, Section

8.5.2 provides, *inter alia*, that NIH will generally suspend (rather than immediately terminate) a grant and allow the recipient an opportunity to take appropriate corrective action before NIH makes a termination decision. Through this lens, 45 CFR 75.372 provides that NIH may terminate a Federal award, in whole or in part, if: (1) the non-Federal entity fails to comply with the terms and conditions of the award; (2) for cause; (3) by the HHS awarding agency or pass-through entity with the consent of the non-Federal entity; or (4) by the non-Federal entity upon written notice to the HHS awarding agency setting forth the reasons for such termination, and other information. None of the foregoing predicate conditions exist here.

As of the date of the Termination, EcoHealth Alliance had not received any notice from NIH, NIAID, or HHS that it either failed to comply with any of the terms or conditions of the 2019 Award, or committed any misconduct in connection with the award. To the contrary, in email correspondence following EcoHealth Alliance's representation that it had not and would not give any funds from the 2019 Award to WIV, Aleksei Chmura, EcoHealth Alliance's Chief of Staff, memorialized the mutual agreement between NIH and EcoHealth Alliance that EcoHealth Alliance was in compliance with all requests. (Ex. C, # 8). To be clear, EcoHealth Alliance clearly and unequivocally stated that it had not and will not distribute any funds from the 2019 Award to WIV.

In sum, there is no statutory, regulatory, or contractual basis for NIAID's termination of the Project, *Understanding the Risk of Bat Coronavirus Emergence*, funded under grant 2R01 AI 110964-6. However, please note that this letter is not intended to provide an exhaustive list of all possible grounds for reversal of the Termination and may not reflect all arguments and claims that EcoHealth Alliance will assert in the event that a formal second-level appeal of the Termination is required.

Should you wish to present evidence in an effort to refute any of the factual assertions made in this letter and/or to engage in good faith negotiations regarding appropriate terms and conditions for the resumption of funding for grant 2R01 AI 110964-6, we are prepared to review such evidence and to participate in such negotiations.

We await your response to this letter.

Very truly yours,

(b) (6)

Andrew M. Krinsky

cc: (by email)

Dr. Erik Stemmy (b) (6)

Ms. Emily Linde (b) (6)

Exhibit A



NATIONAL INSTITUTE OF ALLERGY AND INFECTIOUS DISEASES

Grant Number: 2R01AI110964-06

FAIN: R01AI110964

Principal Investigator(s):

PETER DASZAK, PHD

Project Title: Understanding the Risk of Bat Coronavirus Emergence

Dr. Daszak, Peter
PD/PI
460 West 34th Street
Suite 1701
New York, NY 100012320

Award e-mailed to: (b) (6)

Period Of Performance:

Budget Period: 07/24/2019 – 06/30/2020

Project Period: 06/01/2014 – 06/30/2024

Dear Business Official:

The National Institutes of Health hereby awards a grant in the amount of \$733,750 (see "Award Calculation" in Section I and "Terms and Conditions" in Section III) to ECOHEALTH ALLIANCE, INC. in support of the above referenced project. This award is pursuant to the authority of 42 USC 241 42 CFR 52 and is subject to the requirements of this statute and regulation and of other referenced, incorporated or attached terms and conditions.

Acceptance of this award including the "Terms and Conditions" is acknowledged by the grantee when funds are drawn down or otherwise obtained from the grant payment system.

Each publication, press release, or other document about research supported by an NIH award must include an acknowledgment of NIH award support and a disclaimer such as "Research reported in this publication was supported by the National Institute Of Allergy And Infectious Diseases of the National Institutes of Health under Award Number R01AI110964. The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health." Prior to issuing a press release concerning the outcome of this research, please notify the NIH awarding IC in advance to allow for coordination.

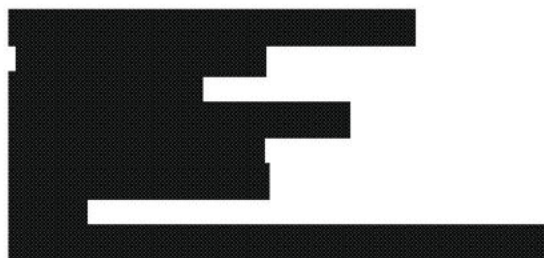
Award recipients must promote objectivity in research by establishing standards that provide a reasonable expectation that the design, conduct and reporting of research funded under NIH awards will be free from bias resulting from an Investigator's Financial Conflict of Interest (FCOI), in accordance with the 2011 revised regulation at 42 CFR Part 50 Subpart F. The Institution shall submit all FCOI reports to the NIH through the eRA Commons FCOI Module. The regulation does not apply to Phase I Small Business Innovative Research (SBIR) and Small Business Technology Transfer (STTR) awards. Consult the NIH website <http://grants.nih.gov/grants/policy/coi/> for a link to the regulation and additional important information.

If you have any questions about this award, please contact the individual(s) referenced in Section IV.

Sincerely yours,

Tseday G Girma
Grants Management Officer
NATIONAL INSTITUTE OF ALLERGY AND INFECTIOUS DISEASES

Additional information follows

SECTION I – AWARD DATA – 2R01AI110964-06

Approved Budget \$733,750
Total Amount of Federal Funds Obligated (Federal Share) \$733,750
TOTAL FEDERAL AWARD AMOUNT \$733,750

AMOUNT OF THIS ACTION (FEDERAL SHARE) \$733,750

SUMMARY TOTALS FOR ALL YEARS			
YR	THIS AWARD		CUMULATIVE TOTALS
6		\$733,750	\$733,750
7		\$709,750	\$709,750
8		\$709,750	\$709,750
9		\$709,750	\$709,750
10		\$709,750	\$709,750

Recommended future year total cost support, subject to the availability of funds and satisfactory progress of the project

Fiscal Information:

CFDA Name: Allergy and Infectious Diseases Research
CFDA Number: 93.855
EIN: 1311726494A1
Document Number: RAI110964B
PMS Account Type: P (Subaccount)
Fiscal Year: 2019

IC	CAN	2019	2020	2021	2022	2023
AI	8472364	\$733,750	\$709,750	\$709,750	\$709,750	\$709,750

Recommended future year total cost support, subject to the availability of funds and satisfactory progress of the project

NIH Administrative Data:

PCC: M51C B / OC: 414B / Released: GIRMATG 07/18/2019
Award Processed: 07/24/2019 12:03:26 AM

SECTION II – PAYMENT/HOTLINE INFORMATION – 2R01AI110964-06

For payment and HHS Office of Inspector General Hotline information, see the NIH Home Page at <http://grants.nih.gov/grants/policy/awardconditions.htm>

SECTION III – TERMS AND CONDITIONS – 2R01AI110964-06

This award is based on the application submitted to, and as approved by, NIH on the above-titled project and is subject to the terms and conditions incorporated either directly or by reference in the following:

- The grant program legislation and program regulation cited in this Notice of Award.
- Conditions on activities and expenditure of funds in other statutory requirements, such as those included in appropriations acts.

- c. 45 CFR Part 75.
- d. National Policy Requirements and all other requirements described in the NIH Grants Policy Statement, including addenda in effect as of the beginning date of the budget period.
- e. Federal Award Performance Goals: As required by the periodic report in the RPPR or in the final progress report when applicable.
- f. This award notice, INCLUDING THE TERMS AND CONDITIONS CITED BELOW.

(See NIH Home Page at <http://grants.nih.gov/grants/policy/awardconditions.htm> for certain references cited above.)

Research and Development (R&D): All awards issued by the National Institutes of Health (NIH) meet the definition of "Research and Development" at 45 CFR Part 75.2. As such, auditees should identify NIH awards as part of the R&D cluster on the Schedule of Expenditures of Federal Awards (SEFA). The auditor should test NIH awards for compliance as instructed in Part V, Clusters of Programs. NIH recognizes that some awards may have another classification for purposes of indirect costs. The auditor is not required to report the disconnect (i.e., the award is classified as R&D for Federal Audit Requirement purposes but non-research for indirect cost rate purposes), unless the auditee is charging indirect costs at a rate other than the rate(s) specified in the award document(s).

An unobligated balance may be carried over into the next budget period without Grants Management Officer prior approval.

This grant is subject to Streamlined Noncompeting Award Procedures (SNAP).

This award is subject to the requirements of 2 CFR Part 25 for institutions to receive a Dun & Bradstreet Universal Numbering System (DUNS) number and maintain an active registration in the System for Award Management (SAM). Should a consortium/subaward be issued under this award, a DUNS requirement must be included. See <http://grants.nih.gov/grants/policy/awardconditions.htm> for the full NIH award term implementing this requirement and other additional information.

This award has been assigned the Federal Award Identification Number (FAIN) R01AI110964. Recipients must document the assigned FAIN on each consortium/subaward issued under this award.

Based on the project period start date of this project, this award is likely subject to the Transparency Act subaward and executive compensation reporting requirement of 2 CFR Part 170. There are conditions that may exclude this award; see <http://grants.nih.gov/grants/policy/awardconditions.htm> for additional award applicability information.

In accordance with P.L. 110-161, compliance with the NIH Public Access Policy is now mandatory. For more information, see NOT-OD-08-033 and the Public Access website: <http://publicaccess.nih.gov/>.

In accordance with the regulatory requirements provided at 45 CFR 75.113 and Appendix XII to 45 CFR Part 75, recipients that have currently active Federal grants, cooperative agreements, and procurement contracts with cumulative total value greater than \$10,000,000 must report and maintain information in the System for Award Management (SAM) about civil, criminal, and administrative proceedings in connection with the award or performance of a Federal award that reached final disposition within the most recent five-year period. The recipient must also make semiannual disclosures regarding such proceedings. Proceedings information will be made publicly available in the designated integrity and performance system (currently the Federal Awardee Performance and Integrity Information System (FAPIIS)). Full reporting requirements and procedures are found in Appendix XII to 45 CFR Part 75. This term does not apply to NIH fellowships.

SECTION IV – AI Special Terms and Conditions – 2R01AI110964-06

Clinical Trial Indicator: No

This award does not support any NIH-defined Clinical Trials. See the NIH Grants Policy Statement Section 1.2 for NIH definition of Clinical Trial.

[REDACTED]

[REDACTED]

[REDACTED]

The Research Performance Progress Report (RPPR), Section G.9 (Foreign component), includes reporting requirements for all research performed outside of the United States. Research conducted at the following site(s) must be reported in your RPPR:

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

This award reflects current Federal policies regarding Facilities & Administrative (F&A) Costs for foreign grantees including foreign sub-awardees, and domestic awards with foreign sub-awardees. Please see: Chapter 16 Grants to Foreign Organizations, International Organizations, and Domestic Grants with Foreign Components, Section 16.6 "Allowable and Unallowable Cost" of the NIH Grants Policy.

This award may include collaborations with and/or between foreign organizations. Please be advised that short term travel visa expenses are an allowable expense on this grant, if justified as critical and necessary for the conduct of the project.

The budget period anniversary start date for future year(s) will be **July 1**.

Dissemination of study data will be in accord with the Recipient's accepted genomic data sharing plan as stated in the page(s) **203** of the application. Failure to adhere to the sharing plan as mutually agreed upon by the Recipient and the NIAID may result in Enforcement Actions as described in the NIH Grants Policy Statement.

This award is subject to the Clinical Terms of Award referenced in the NIH Guide for Grants and Contracts, July 8, 2002, NOT AI-02-032. These terms and conditions are hereby incorporated by reference, and can be accessed via the following World Wide Web address:

<https://www.niaid.nih.gov/grants-contracts/niaid-clinical-terms-award> All submissions required by the NIAID Clinical Terms of Award must be forwarded electronically or by mail to the responsible NIAID Program Official identified on this Notice of Award.

Awardees who conduct research involving Select Agents (see 42 CFR 73 for the Select Agent list; and 7 CFR 331 and 9 CFR 121 for the relevant animal and plant pathogens at <http://www.selectagents.gov/Regulations.html>) must complete registration with CDC (or APHIS, depending on the agent) before using NIH funds. No funds can be used for research involving Select Agents if the final registration certificate is denied.

Prior to conducting a restricted experiment with a Select Agent or Toxin, awardees must notify the NIAID and must request and receive approval from CDC or APHIS.

Select Agents:

Awardee of a project that at any time involves a restricted experiment with a select agent, is responsible for notifying and receiving prior approval from the NIAID. Please be advised that changes in the use of a Select Agent will be considered a change in scope and require NIH awarding office prior approval. The approval is necessary for new select agent experiments as well as changes in on-going experiments that would require change in the biosafety plan and/or biosafety containment level. An approval to conduct a restricted experiment granted to an individual cannot be assumed an approval to other individuals who conduct the same restricted experiment as defined in the Select Agents Regulation 42 CFR Part 73, Section 13.b (<http://www.selectagents.gov/Regulations.html>).

Highly Pathogenic Agent:

NIAID defines a Highly Pathogenic Agent as an infectious Agent or Toxin that may warrant a biocontainment safety level of BSL3 or higher according to the current edition of the CDC/NIH Biosafety in Microbiological and Biomedical Laboratories (BMBL) (<http://www.cdc.gov/OD/ohs/biosfty/bmbl5/bmbl5toc.htm>). Research funded under this grant must adhere to the BMBL, including using the BMBL-recommended biocontainment level at a minimum. If your Institutional Biosafety Committee (or equivalent body) or designated institutional biosafety official recommend a higher biocontainment level, the highest recommended containment level must be used.

When submitting future Progress Reports indicate at the beginning of the report:

If no research with a Highly Pathogenic Agent or Select Agent has been performed or is planned to be performed under this grant.

If your IBC or equivalent body or official has determined, for example, by conducting a risk assessment, that the work being planned or performed under this grant may be conducted at a biocontainment safety level that is lower than BSL3.

If the work involves Select Agents and/or Highly Pathogenic Agents, also address the following points:

Any changes in the use of the Agent(s) or Toxin(s) including its restricted experiments that have resulted in a change in the required biocontainment level, and any resultant change in location, if applicable, as determined by your IBC or equivalent body or official.

If work with a new or additional Agent(s)/Toxin(s) is proposed in the upcoming project period, provide:

- o A list of the new and/or additional Agent(s) that will be studied;
- o A description of the work that will be done with the Agent(s), and whether or not the work is a restricted experiment;
- o The title and location for each biocontainment resource/facility, including the name of the organization that operates the facility, and the biocontainment level at which the work will be conducted, with documentation of approval by your IBC or equivalent body or official. It is important to note if the work is being done in a new location.

STAFF CONTACTS

Exhibit B

Date: April 19, 2020

From: Michael S Lauer, MD
NIH Deputy Director for Extramural Research

Lauer, Michael
(NIH/OD) [E]
Digitally signed by Lauer,
Michael (NIH/OD) [E]
Date: 2020.04.19 10:47:40
-04'00'

To: Kevin Olival, PhD
Vice-President for Research
EcoHealth Alliance

(b) (6)

Naomi Schrag, JD
Vice-President for Research Compliance, Training, and Policy
Columbia University

(b) (6)

Subject: Project Number 2R01AI110964-06

Dear Dr. Olival and Ms. Schrag:

EcoHealth Alliance, Inc. is the recipient, as grantee, of an NIH grant entitled "Understanding the Risk of Bat Coronavirus Emergence." It is our understanding that one of the sub-recipients of the grant funds is the Wuhan Institute of Virology ("WIV"). It is our understanding that WIV studies the interaction between corona viruses and bats. The scientific community believes that the coronavirus causing COVID-19 jumped from bats to humans likely in Wuhan where the COVID-19 pandemic began. There are now allegations that the current crisis was precipitated by the release from WIV of the coronavirus responsible for COVID-19. Given these concerns, we are pursuing suspension of WIV from participation in Federal programs.

While we review these allegations during the period of suspension, you are instructed to cease providing any funds from the above noted grant to the WIV. This temporary action is authorized by 45 C.F.R. § 75.371(d) ("Initiate suspension or debarment proceedings as authorized under 2 C.F.R. part 180"). The incorporated OMB provision provides that the funding agency may, through suspension, immediately and temporarily exclude from Federal programs persons who are not presently responsible where "immediate action is necessary to protect the public interest." 2 C.F.R. § 180.700(c). It is in the public interest that NIH ensure that a sub-recipient has taken all appropriate precautions to prevent the release of pathogens that it is studying. This suspension of the sub-recipient does not affect the remainder of your grant assuming that no grant funds are provided to WIV following receipt of this email during the period of suspension.

Exhibit C

From: Lauer, Michael (NIH/OD) [E] (b) (6)
Sent: Sunday, April 19, 2020 11:00 AM
To: (b) (6); Naomi Schrag (b) (6)
Cc: Black, Jodi (NIH/OD) [E] (b) (6)
Subject: Please read and acknowledge receipt -- Actions needed regarding 2R01AI110964-06
Importance: High

Dear Dr. Olival and Ms. Schrag

Please see attached. (Referring to Exhibit B)

Many thanks, Mike

Michael S Lauer, MD
NIH Deputy Director for Extramural Research
1 Center Drive, Building 1, Room 144
Bethesda, MD 20892
Phone: (b) (6)
Email: (b) (6)

2 Kevin Olival email on 20 April 2020

From: Kevin Olival (b) (6)

Subject: Re: Please read and acknowledge receipt -- Actions needed regarding 2R01AI110964-06

Date: April 20, 2020 at 4:12:28 PM EDT

To: "Lauer, Michael (NIH/OD) [E]" (b) (6)

Cc: Naomi Schrag (b) (6), "Black, Jodi (NIH/OD) [E]" (b) (6)

Dear Mike,

I received the attached letter, however please note:

1. I am not the PI on this award. You should contact Dr. Peter Daszak (b) (6) who is the PI and leading this project for EcoHealth Alliance.
2. Columbia University is not involved in this NIH project, and it is not clear to me why Naomi and Columbia University were included.

Thank you,
Kevin

Kevin J. Olival, PhD
Vice President for Research

EcoHealth Alliance
460 West 34th Street, Suite 1701
New York, NY 10001

(b) (6) (direct)
(b) (6) (mobile)
1.212.380.4465 (fax)
www.ecohealthalliance.org

Re: Please read and acknowledge receipt -- Actions needed regarding 2R01AI110964-06

Lauer, Michael (NIH/OD) [E] (b) (6)

Mon 4/20/2020 4:31 PM

To: Kevin Olival (b) (6); Peter Daszak (b) (6)

Cc: Naomi Schrag (b) (6); Black, Jodi (NIH/OD) [E] (b) (6); Lauer, Michael (NIH/OD) [E] (b) (6)

Importance: High

2 attachments

Screen Shot 2020-04-20 at 4.23.38 PM.png; EcoHealth Alliance re AI grant 4 19 20.pdf;

Thank you Kevin

- We need to work with a senior responsible business official – usually PI's and senior business officials are different people.
- When I looked you up on the web, I see the Columbia logo (see attached screenshot). Specifically, it appears to be Columbia University > Ecology, Evolution, and Environmental Biology > EcoHealth Alliance (labeled as an "Affiliation/Department"). Thus the web profile makes it look to me as if EcoHealth Alliance is linked to Columbia University.
- In any case, I'm looping in Dr. Daszak.
- We need to know all sites in China that have been in any way linked to this award (Type 1 and Type 2). We have data in NIH, but we want to make absolutely sure that we're of the same understanding.

We greatly appreciate your prompt attention to this matter.

Best, Mike

Michael S Lauer, MD
NIH Deputy Director for Extramural Research
1 Center Drive, Building 1, Room 144
Bethesda, MD 20892
Phone: (b) (6)
Email: (b) (6)

Re: Please read and acknowledge receipt -- Actions needed regarding 2R01AI110964-06

4 Michael Lauer email on 20 April 2020

Lauer, Michael (NIH/OD) [E] (b) (6)

Mon 4/20/2020 6:34 PM

To: Naomi Schrag (b) (6), Kevin Olival (b) (6), Peter Daszak (b) (6)

Cc: Black, Jodi (NIH/OD) [E] (b) (6), Lauer, Michael (NIH/OD) [E] (b) (6)

1 attachment

Screen Shot 2020-04-20 at 4.23.38 PM.png;

Thanks Naomi – not the impression an observer would get looking at the website (see screen shot), but we understand about the grant.

If they “are entirely separate entities” then why does Columbia identify EcoHealth Alliance as an “Affiliation/Department” on its website.

Maybe with the label “Affiliation/Department” you would have a clearly visible disclaimer that says, “EcoHealth Alliance is not affiliated with nor a department of Columbia”? – although even that is internally contradictory.

Best, Mike

From: Naomi Schrag (b) (6)

Date: Monday, April 20, 2020 at 5:19 PM

To: "Lauer, Michael (NIH/OD) [E]" (b) (6), Kevin Olival (b) (6), (b) (6), (b) (6)

Cc: Naomi Schrag (b) (6), "Black, Jodi (NIH/OD) [E]" (b) (6)

Subject: RE: Please read and acknowledge receipt -- Actions needed regarding 2R01AI110964-06

Dear Dr. Lauer,

Columbia and EcoHealth Alliance are entirely separate entities. Some individuals affiliated with EcoHealth Alliance do have adjunct appointments in Columbia's Ecology, Evolution, and Environmental Biology ("E3B") department, but we are not aware of any Columbia involvement with the referenced grant, and have found no agreement or record in our grants system to the contrary.

We would be happy to answer any additional questions. Thank you.

Sincerely,
Naomi Schrag

Naomi J. Schrag

Vice President for Research Compliance, Training and Policy
Office of Research Compliance and Training
475 Riverside Drive, Suite 840
New York, New York 10115

(b) (6)

www.researchcompliance.columbia.edu

RE: Please read and acknowledge receipt -- Actions needed regarding 2R01AI110964-06

5 Peter Daszak email on 21 April 2020

Peter Daszak

Tue 4/21/2020 1:32 AM

To: Lauer, Michael (NIH/OD) [E] (b) (6); Naomi Schrag (b) (6); Kevin Olival (b) (6)

Cc: Black, Jodi (NIH/OD) [E] (b) (6)

Dear Michael Lauer & Jodi Black – I now have your email and will deal with it directly with you and your staff. Naomi is correct that there is no involvement of Columbia University in this grant. I'm sure NIH has records to confirm that.

From this moment on, I will not cc any staff at Columbia as part of this discussion, and I hope you will also honor that. Respectfully, the discussion of whether or not EHA is an affiliate of CU is entirely irrelevant to the request that you contacted us about, and should remain a private matter between EcoHealth Alliance and Columbia University.

I'll look over your email and respond tomorrow.

Cheers,

Peter

Peter Daszak
President

EcoHealth Alliance
460 West 34th Street
New York, NY 10001
USA

Tel.: (b) (6)
Website: www.ecohealthalliance.org
Twitter: [@PeterDaszak](https://twitter.com/PeterDaszak)

EcoHealth Alliance develops science-based solutions to prevent pandemics and promote conservation

RE: Please read and acknowledge receipt -- Actions needed regarding 2R01AI110964-06

6 Peter Daszak email on 21 April 2020

Peter Daszak

Tue 4/21/2020 7:03 PM

To: Lauer, Michael (NIH/OD) [E] (b) (6)

Cc: Black, Jodi (NIH/OD) [E] (b) (6) Aleksei Chmura (b) (6)
Stemmy, Erik (NIH/NIAID) [E] (b) (6)

Importance: High

1 attachment

EcoHealth Alliance re AI grant 4 19 20.pdf;

Dear Michael – Confirming receipt of your email. I'm also cc'ing the following people so they're aware of this request:

1. Our AOR – Dr. Aleksei Chmura, who has access to all our records
2. My Program Officer for this award, Dr. Erik Stemmy & the Division Director (DMID), Dr. Emily Erberding, so they are informed and aware of the request and our response.

That said we need some time to go through the request for information and will provide this as quickly as we can.

However, I can categorically state that no funds from 2R01AI110964-06 have been sent to Wuhan Institute of Virology, nor has any contract been signed. Furthermore, we will comply with NIAID requirements, of course.

Concerning the request for information on all of the sites linked to this award in China, you should be aware that these are documented in our progress reports over the course of the grant. As you can understand we are under enormous pressure to generate data related to the current pandemic, and we do not want to divert staff to this effort. We are hoping the previously filed reports will satisfy this request.

We are well aware of the political concerns over the origins of this outbreak. Our collaboration with Wuhan Institute of Virology has been scientific and we have been consistently impressed with the scientific capabilities of that laboratory and its research staff. Our joint work has led to a series of critical papers published in high impact journals that served to raise awareness of the future threat coronaviruses pose for global health and therefore US national security. Scientific insights with epidemiological significance have been jointly published and our relationship has always been open and transparent and with one concern only, scientific validity. We are concerned that current actions may jeopardize 15 years of fruitful collaboration with colleagues in Wuhan, who are working at the leading edge to design vaccines and drugs that could help us fight this new threat in future years. It is quite remarkable that of the 5 vaccine candidates listed by WHO that are already in human trials, 3 have been developed in China. That said, we of course will

do all we can to make sure any further questions from NIH or any Federal agency are addressed to our fullest knowledge.


Yours sincerely,

Peter Daszak
President

EcoHealth Alliance
460 West 34th Street
New York, NY 10001
USA

Tel.: [REDACTED] (b) (6)
Website: www.ecohealthalliance.org
Twitter: [@PeterDaszak](https://twitter.com/PeterDaszak)

EcoHealth Alliance develops science-based solutions to prevent pandemics and promote conservation

From: Lauer, Michael (NIH/OD) [E] (b) (6) 
Subject: Re: Please read and acknowledge receipt -- Actions needed regarding 2R01AI110964-06
Date: April 21, 2020 at 19:28
To: Peter Daszak (b) (6)
Cc: Black, Jodi (NIH/OD) [E] (b) (6), Aleksei Chmura (b) (6), Stemmy, Erik (NIH/NIAID) [E]
(b) (6) Erbelding, Emily (NIH/NIAID) [E] (b) (6), Lauer, Michael (NIH/OD) [E]
(b) (6)

ML

Many thanks Peter for your response.

We note that:

- No monies have gone to WIV on the Type 2 award and no contract has been signed.
- You agree that you will not provide any funds to WIV until and unless directed otherwise by NIH.
- All foreign sites for the Type 1 and Type 2 awards have been documented in the progress reports submitted to NIH.

We appreciate your working with us.

Best, Mike

Michael S Lauer, MD
NIH Deputy Director for Extramural Research
1 Center Drive, Building 1, Room 144
Bethesda, MD 20892
Phone: (b) (6)
Email: (b) (6)



From: Aleksei Chmura (b) (6)

Subject: Re: Please read and acknowledge receipt -- Actions needed regarding 2R01AI110964-06

Date: April 23, 2020 at 13:50

To: Lauer, Michael (NIH/OD) [E] (b) (6)

Cc: Peter Daszak (b) (6) Black, Jodi (NIH/OD) [E] (b) (6) Erik Stemmy (b) (6)
Erbelding, Emily (NIH/NIAID) [E] (b) (6)

Dear Mike,

I read that we are in agreement and in compliance with all requests. Please let us know if anything further is required. We will continue in our usual close communication with our Program Officer Erik Stemmy.

Sincerely,

-Aleksei

Aleksei Chmura
*Chief of Staff &
Authorized Organizational Representative*

EcoHealth Alliance
460 West 34th Street, Suite 1701
New York, NY 10001

(b) (6) (office)
(b) (6) (mobile)
www.ecohealthalliance.org

EcoHealth Alliance develops science-based solutions to prevent pandemics and promote conservation.

From: Lauer, Michael (NIH/OD) [E] (b) (6)

ML

Subject: Re: Please read and acknowledge receipt -- Actions needed regarding 2R01AI110964-06

Date: April 23, 2020 at 13:59

To: Aleksei Chmura (b) (6)

Cc: Peter Daszak (b) (6), Black, Jodi (NIH/OD) [E] (b) (6) Stemmy, Erik (NIH/NIAID) [E]

(b) (6) Erbelding, Emily (NIH/NIAID) [E] (b) (6) Lauer, Michael (NIH/OD) [E]

(b) (6) Compliance Review ComplianceReview@mail.nih.gov

Many thanks Aleksei.

9 Michael Lauer email on 21 April 2020

Best, Mike



From: Lauer, Michael (NIH/OD) [E] (b) (6)

Subject: PLEASE READ -- Re: Please read and acknowledge receipt -- Actions needed regarding 2R01AI110964-06

Date: April 24, 2020 at 16:47

To: Aleksei Chmura (b) (6), Peter Daszak (b) (6)

Cc: Black, Jodi (NIH/OD) [E] (b) (6), Stemmy, Erik (NIH/NIAID) [E] (b) (6),

Erbelding, Emily (NIH/NIAID) [E] (b) (6) Linde, Emily (NIH/NIAID) [E] (b) (6)

Lauer, Michael (NIH/OD) [E] (b) (6) Bulls, Michelle G. (NIH/OD) [E] (b) (6)

Dear Dr. Chmura and Dr. Daszak

10 Michael Lauer email on 24 April 2020

Please see attached. (Referring to Exhibit D)

Sincerely,
Michael S Lauer, MD

Michael S Lauer, MD
NIH Deputy Director for Extramural Research
1 Center Drive, Building 1, Room 144
Bethesda, MD 20892
Phone: (b) (6)
Email: (b) (6)

From: **Aleksei Chmura** (b) (6)



Subject: Re: PLEASE READ -- Re: Please read and acknowledge receipt -- Actions needed regarding 2R01AI110964-06

Date: April 27, 2020 at 23:57

To: Lauer, Michael (NIH/OD) [E] (b) (6)

Cc: Peter Daszak (b) (6), Black, Jodi (NIH/OD) [E] (b) (6), Erik Stemmy (b) (6)

Emily Erbelding (b) (6), Linde, Emily (NIH/NIAID) [E] (b) (6), Bulls, Michelle G. (NIH/OD) [E]

(b) (6) Alison Andre (b) (6)

Dear Michael,

Could Peter and I have a quick chat with you sometime tomorrow (Tuesday) about your email, below?

Sincerely,

11 Aleksei Chmura email on 27 April 2020

-Aleksei

Aleksei Chmura, PhD

Chief of Staff

EcoHealth Alliance
460 West 34th Street, Suite 1701
New York, NY 10001

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

www.ecohealthalliance.org

EcoHealth Alliance develops science-based solutions to prevent pandemics and promote conservation.

Exhibit D



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

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

24 April 2020

Drs. Aleksei Chmura and Peter Daszak
EcoHealth Alliance, Inc.
460 W 34th St
Suite 1701
New York, NY 10001

Re: Termination of NIH Grant R01 AI 110964

Dear Drs. Chmura and Daszak:

I am writing to notify you that the National Institute of Allergy and Infectious Diseases (NIAID), an Institute within the National Institutes of Health (NIH), under the Department of Health and Human Services (HHS) has elected to terminate the project *Understanding the Risk of Bat Coronavirus Emergence*, funded under grant R01 AI110964, for convenience. This grant project was issued under the authorization of Sections 301 and 405 of the Public Health Service Act as amended (42 USC 241 and 284). This grant was funded as a discretionary grant as outlined in the NIH Grants Policy Statement, which states that the decision not to award a grant, or to award a grant at a particular funding level, is at the discretion of the agency, in accordance with NIH's dual review system.

At this time, NIH does not believe that the current project outcomes align with the program goals and agency priorities. NIAID has determined there are no animal and human ethical considerations, as this project is not a clinical trial, but rather an observational study.

As a result of this termination, a total of \$369,819.56 will be remitted to NIAID and additional drawdowns will not be supported. The remaining funds have been restricted in the HHS Payment Management System, effective immediately.

Please let me know if you have any questions concerning the information in this letter.

Sincerely,

Lauer, Michael (NIH/OD) [E]

Digitally signed by Lauer, Michael (NIH/
OD) [E]
Date: 2020.04.24 16:41:16 -0400

Michael S Lauer, MD
NIH Deputy Director for Extramural Research
Email: [REDACTED] (b) (6)

cc: Dr. Erik Stemmy
Ms. Emily Linde



Exhibit E

SPECIFIC AIMS

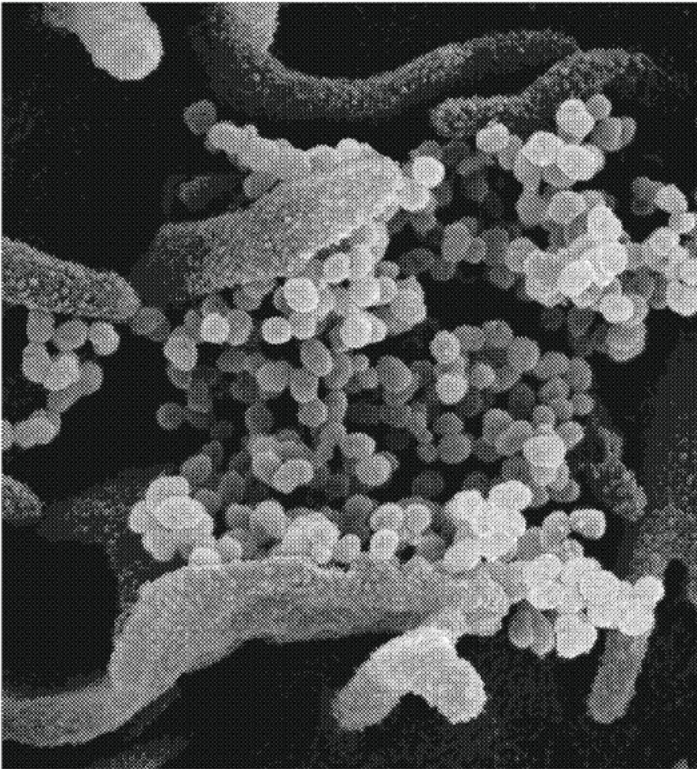
Zoonotic coronaviruses are a significant threat to global health, as demonstrated with the emergence of Severe Acute Respiratory Syndrome coronavirus (SARS-CoV) in 2002, and the continuing spread of Middle East Respiratory Syndrome (MERS-CoV). The wildlife reservoirs of SARS-CoV were identified by our group as bat species, and since then we have sequenced dozens of novel SARS-related CoV (SARSr-CoV) strains. Our previous R01 work demonstrates that bats in southern China harbor an extraordinary diversity of SARSr-CoVs, some of which are able to use human ACE2 to enter into human cells, can infect humanized mouse models to cause SARS-like illness, and evade available therapies or vaccines. We found that the bat hosts of SARSr-CoVs appear to no longer be traded in wildlife markets, and that people living close to bat habitats are the primary risk groups for spillover. At one of these sites, we found diverse SARSr-CoVs containing every genetic element of the wild-type SARS-CoV genome, and serological evidence of human exposure among people living nearby. Thus, there is significant potential for future spillover of SARSr-CoVs, and of public health impacts. Yet salient questions remain: Are there specific bat communities and sites that harbor CoV strains with higher risk for bat-to-human spillover? Which human behaviors drive risk of bat SARSr-CoV exposure that could lead to infection? Does human exposure to these viruses cause SARS-like or other illness? Can we characterize viral strain diversity, bat traits and human behaviors to assess risk of potential future CoV spillover? **The proposed work in this renewal R01 builds on these findings** to address these issues by conducting: **1) focused sampling of bats in southern China to identify viral strains with high predicted risk of spillover; 2) community-based, and clinic-based syndromic, sampling of people to identify spillover, and assess behavioral risk factors and evidence of illness; and 3) conduct *in vitro* and *in vivo* viral characterization and analyze epidemiological data to identify hotspots of future CoV spillover risk.** This work will follow 3 specific aims:

Aim 1: Characterize the diversity and distribution of high spillover-risk SARSr-CoVs in bats in southern China. We will conduct targeted bat sampling at sites where we predict that undiscovered high risk SARSr-CoV strains exist. Bat sampling will be targeted geographically and by host species to test predictions about evolutionary diversity of SARSr-CoV. We will analyze RdRp and S protein sequences to test their capacity for spillover to people in Aim 3.

Aim 2: Community- and clinic-based surveillance to capture SARSr-CoV spillover, routes of exposure and potential public health consequences. We will conduct focused, targeted human surveys and sampling to identify key risk factors for SARSr-CoV spillover and evidence of illness. To maximize our opportunity of capturing human exposure to bat CoVs, we will conduct community-based surveillance in regions with high SARSr-CoV prevalence and diversity, and individuals having contact with bats. We will assess bat-CoV seropositive status against a small number of questions about human-wildlife contact and exposure. We will conduct clinic-based syndromic surveillance close to these sites to identify patients presenting with influenza-like illness and severe acute respiratory illness, assess their exposure to bats via a questionnaire, and test samples for PCR- and serological evidence of SARSr-CoV infection. We will conduct follow-up sampling to capture patients who had not yet seroconverted at the time of clinic visit.

Aim 3: *In vitro* and *in vivo* characterization of SARSr-CoV spillover risk, coupled with spatial and phylogenetic analyses to identify the regions and viruses of public health concern. We will characterize the propensity of novel SARSr-CoVs to infect people *in vitro* using primary human airway epithelial cells and *in vivo* using the transgenic hACE2 mouse model. We will use mAb and vaccine treatments to test our hypothesis that SARSr-CoVs with 10-25% divergence in S protein sequences from SARS-CoV are likely able to infect human cells, and to evade mAb therapeutics and vaccines. We will then map the geographic distribution of their bat hosts and other ecological risk factors to identify the key 'hotspots' of risk for future spillover.

Overall, our SARSr-CoV program serves as a model platform to integrate virologic, molecular and ecologic factors contributing to CoV emergence while informing high impact strategies to intervene and prevent future pandemics. This includes providing critical reagents, therapeutic interventions and recombinant viruses for future SARSr-CoV pandemic and public health preparedness.



This scanning electron microscope image shows SARS-CoV-2 (yellow), the virus that causes COVID-19, isolated from a patient in the United States, emerging from the surface of cells (pink) cultured in the lab. Credit: NIAID-RML

NIAID STRATEGIC PLAN FOR COVID-19 RESEARCH

FY2020 – FY2024

April 22, 2020



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Executive Summary

The National Institute of Allergy and Infectious Diseases (NIAID) at the United States (U.S.) National Institutes of Health (NIH) is committed to safeguarding the health of Americans and people around the world by accelerating research efforts to prevent, diagnose, and treat COVID-19 and characterize the causative agent of this disease, severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). This *NIAID Strategic Plan for COVID-19 Research* builds on current trans-NIAID efforts to better understand SARS-CoV-2 pathogenesis, transmission, and mechanisms of protective immunity by expanding resources and activities that support rapid development of biomedical tools to more effectively combat this disease and pandemic. Given the urgency of the public health response, studies that inform efforts to control virus spread and mitigate morbidity and mortality, including therapeutic and vaccine development, are the priority. In addition, it is essential to develop rapid, accurate, point-of-care diagnostics—a critical asset to mitigating the spread of COVID-19.

Box 1 NIAID Strategic Plan for COVID-19 Research Mission

Conduct and support research on SARS-CoV-2 and COVID-19 to accelerate the development of safe and effective medical countermeasures that decrease disease incidence, mitigate morbidity and prevent mortality.

The *NIAID Strategic Plan for COVID-19 Research* aligns with the priorities set by U.S. Government-wide task forces for the development of medical countermeasures. NIAID actively participates in COVID-19 task forces to identify opportunities, ensure open communication, encourage resource sharing, and avoid duplication of effort. The plan is structured around four strategic research priorities:

1. **Improve fundamental knowledge of SARS-CoV-2 and COVID-19**, including studies to characterize the virus and how it is transmitted and understand the natural history, epidemiology, host immunity, disease immunopathogenesis, and the genetic, immunologic, and clinical associations with more severe disease outcomes. This includes accelerating the development of small and large animal models that replicate human disease.
2. **Support the development of diagnostics and assays**, including point-of-care molecular and antigen-based diagnostics for identifying and isolating COVID-19 cases and serologic assays to better understand disease prevalence in the population. Diagnostics also will be essential for evaluating the effectiveness of candidate countermeasures.
3. **Characterize and test therapeutics**, including identifying and evaluating repurposed drugs and novel broad-spectrum antivirals, virus-targeted antibody-based therapies (including plasma-derived intravenous immunoglobulin (IVIG) and monoclonal antibodies), and host-directed strategies to combat COVID-19.
4. **Develop safe and effective vaccines against SARS-CoV-2**, including support of clinical trial testing.

To accelerate research, NIAID will leverage current resources and global collaborations, including existing research programs and clinical trials networks. NIAID's research response to COVID-19 will build on experience with diseases caused by other zoonotic coronaviruses (CoVs), including severe acute

respiratory syndrome (SARS) and Middle East respiratory syndrome (MERS). NIAID will pursue public-private partnerships to facilitate the translation of research outcomes into life-saving public health interventions. Working with pharmaceutical companies, NIAID has already initiated Phase 1 clinical trials for candidate COVID-19 vaccines and therapeutics. A concerted effort will be made to include minority populations, as well as at-risk and vulnerable populations, in all aspects of NIAID-sponsored research to address health disparities between diverse groups. Characterization of the fundamental virology of SARS-CoV-2 and the immunological response to infection will inform future studies and facilitate the development of effective medical countermeasures. With collaboration from all agencies within the U.S. government and other key U.S. and global partners, NIAID will rapidly disseminate these results so that the information can be translated into clinical practice and public health interventions to combat the pandemic. As such, NIAID has already implemented open sharing of scientific data through publicly available websites and will continue to promote the prompt disclosure of SARS-CoV-2 and COVID-19 research data by the scientific community.

Research Plan

Priority 1: Improve fundamental knowledge of SARS-CoV-2 and COVID-19

Developing effective medical and public health countermeasures against a newly emergent virus like SARS-CoV-2 will require a better understanding of the complex molecular and immune mechanisms underlying infection and disease. Studies that delineate the viral lifecycle and host immune responses to infection can lead to the identification of novel targets for intervention against SARS-CoV-2 infection and COVID-19. Early studies suggest that the clinical manifestations of COVID-19 can vary significantly, and disease severity can range from mild to critical. Thus, a detailed understanding of the clinical course of disease, as well as the clinical, virologic, immunological, and genetic predictors of disease severity, are needed. Gaps also exist in our understanding of the dynamics of disease transmission in different populations over time, including the role of pediatric and elderly populations in viral spread, and the potential seasonality of viral circulation.

Objective 1.1: Characterize fundamental SARS-CoV-2 virology and immunological host response to infection

- **Support the development and distribution of reagents and viral isolates to researchers.** NIAID will continue to support both intramural and extramural researchers by developing reagents and assays for virus characterization and immunological analyses. NIAID will continue to accelerate SARS-CoV-2 research by sourcing viral isolates and clinical specimens for the research community and placing them in repositories to help advance research and countermeasure development. In addition, NIAID will place other critical reagents needed for assay development (e.g., pseudovirions and antigens) in publicly available repositories for distribution.
- **Characterize virus biology and immunological responses to disease.** A comprehensive understanding of the

Box 2
Priority 1: Improve fundamental knowledge of SARS-CoV-2 and COVID-19
Objective 1.1: Characterize fundamental SARS-CoV-2 virology and immunological host response to infection
Objective 1.2: Evaluate disease dynamics through natural history, transmission, and surveillance studies
Objective 1.3: Develop animal models that recapitulate human disease

biological processes involved in SARS-CoV-2 infection and the pathogenesis of COVID-19 are paramount to developing new medical countermeasures to fight the spread of disease. Building on prior research related to MERS and SARS coronaviruses, early studies confirmed several critical features of SARS-CoV-2 infection, including the primary host receptor, angiotensin converting enzyme 2 (ACE-2), and the structure of the virus receptor-binding domain. Studies that delineate the viral lifecycle and host immune responses to infection can lead to the identification of novel targets for intervention against SARS-CoV-2 infection and COVID-19. Understanding the function of essential viral proteins will be necessary for improving diagnostic and immunological assays, *in vitro* and *in vivo* models, and other resources needed to advance safe and effective medical countermeasure development. In addition, evaluating the dynamics of host-pathogen interactions at the molecular and cellular levels will be critical to advancing our understanding of viral pathogenesis and immune responses that contribute to SARS-CoV-2 infection.

- **Determine viral evolution and molecular epidemiology.** With a newly emergent virus like SARS-CoV-2, studies to characterize genetic diversity, including those that assess the potential for the virus to evolve and escape host immunity, are pivotal for understanding disease progression and transmission dynamics and may have implications for countermeasure development. Viral genomic analysis matched with patient clinical data will be important to identify biomarkers of virulence and establish paradigms of sequence diversity. In addition, evaluating viral sequence associations with disease outcomes, immune status, and viral replication will provide crucial data to accelerate the development of effective medical countermeasures.
- **Develop low-containment assays to study virus neutralization.** Studies using non-infectious pseudovirions can be conducted in labs without BSL-3 capacity, making them an important tool to enhance understanding of SARS-CoV-2 infection. This capability would enable researchers without high-containment infrastructure to study the dynamics of virus neutralization *in vitro*.
- **Research into optimal public health prevention and mitigation modalities.** Clinical trials including family members of a COVID-19 positive individual can be devised to evaluate transmission, prevention, and other mitigation measures within the household.

Objective 1.2: Evaluate disease dynamics through natural history, transmission, and surveillance studies

- **Characterize disease incidence through surveillance studies.** Clinical manifestations of COVID-19 can vary greatly, ranging from asymptomatic or mildly symptomatic to the development of pneumonia, acute respiratory distress syndrome, and even death.¹ The variation in clinical presentation of COVID-19, combined with the challenges in diagnostic capacity, have made accurate initial assessments of disease incidence a formidable challenge. However, rapid point-of-care and point-of-need molecular tests, which became available in March 2020, will enable hospitals and other healthcare facilities to make informed decisions regarding patient isolation and care. Studies that leverage existing high-throughput diagnostic capacity along with these rapid tests will advance our understanding of disease incidence across the nation and will be a critical component of strategies to implement effective medical countermeasures. Combining these studies with broad serosurveillance studies across existing surveillance networks, including blood bank studies, would

¹ Wu Z and McGoogan JM. *JAMA* 2020 Feb 24. Epub. PMID 32091533.

provide a more complete picture of the scope of disease and the dynamics of infection. Detailed knowledge of host genetics and the human responses to infection across the lifespan will not only provide insights into new approaches for diagnosis, treatment, and prevention, but also may elucidate why individuals respond to SARS-CoV-2 in different ways. Reports to date suggest that COVID-19 resolves in most cases,² implying that the immune system can keep the infection from progressing to severe disease in many individuals. However, additional research is needed to better understand why some people progress to severe disease, which will lend critical insights to medical countermeasure development.

- **Assess the dynamics of disease transmission.** Our current understanding of COVID-19 transmission is limited. While recent studies have suggested timeframes for virus survival in aerosols and on surfaces,³ the contributions of different routes of transmission and the dynamics of animal-to-human and human-to-human transmission remain unclear. The diverse clinical presentations of COVID-19, including a high prevalence of asymptomatic cases, add further complexity to understanding transmission dynamics. Providing a clearer picture of the natural history of viral shedding is a priority, both in acute cases and in asymptomatic infection. Given the challenges of accurately diagnosing asymptomatic individuals because they do not present for treatment, determining the role they play in transmission would provide valuable insights. Elucidating the role of pediatric cases in the spread of SARS-CoV-2 is particularly important. Although pediatric COVID-19 cases are generally asymptomatic or have less severe clinical manifestations than those of adults, the role that children play in spreading the virus is unknown. Additionally, studies to identify potential animal reservoirs and better understand transmission from animals to humans are a research priority, as these reservoirs may lead to future virus introductions and re-emergence of disease in humans. Virus transmission depends on a complex interplay of host, viral, and environmental factors that contribute to disease incidence and spread. Identifying the factors that maintain the disease transmission cycle is critical to developing effective medical countermeasures and public health interventions that will prevent future pandemics.
- **Determine disease progression through natural history studies.** Delineating the natural history of COVID-19 will inform immunopathogenesis, viral tropisms and length of shedding, immune phenotypes, and both protective immunity and host susceptibility. Disease assessment using longitudinal cohort studies, including among high-risk populations such as healthcare workers and the elderly, are important to better understand disease pathogenesis and immune responses to infection. Biomarkers identified from these studies may provide valuable insights into predictors of disease severity.

Objective 1.3: Develop animal models that recapitulate human disease

- **Develop small and large animal models that replicate SARS-CoV-2 pathogenesis.** Developing animal models that recapitulate human disease is a vital early step toward understanding disease pathogenesis and testing the efficacy of medical countermeasures. Small animal models enable rapid, scalable analyses that are particularly valuable for screening countermeasure candidates for efficacy and addressing issues concerning vaccine-induced immune enhancement. Among the small animal models being tested, transgenic mice expressing the human ACE-2 receptor are a promising candidate. In parallel, development and characterization of large animal models, including non-human primates (NHPs) that mimic human COVID-19, are a pivotal step to advance promising

² *ibid.*

³ van Doremalen *N et al. N Engl J Med* 2020 Mar 17. Epub. PMID 32182409.

countermeasure candidates. Previous experience with related coronavirus diseases such as MERS and SARS suggests that replicating human disease, particularly its more severe manifestations, in an animal model may be challenging. Fundamental research assessing animal models ranging from mice to NHPs is already underway. NIAID will continue to support the development of small and large animal model candidates to better understand this emerging infection and investigate optimal ways to treat and prevent COVID-19. NIAID also will ensure that validated animal models are made available to the scientific community for evaluating priority countermeasures.

Priority 2: Support the development of diagnostics and assays

Availability of rapid, accurate Food and Drug Administration (FDA)-cleared or authorized diagnostics will increase testing capacity and are critical for identifying and rapidly isolating cases, tracking spread of the virus, managing patient care, and supporting clinical trials. Molecular tests specifically designed to detect SARS-CoV-2 RNA in clinical samples are able to detect low levels of pathogen in clinical samples and offer robust specificity in differentiating SARS-CoV-2 from other related viruses. Continuing to improve the speed and accuracy of molecular and antigen-based diagnostics and making them available at point-of-care will be paramount to accelerating the ability to mitigate disease spread in the current outbreak and any future outbreaks. The development of serologic assays would further bolster surveillance efforts, including the ability to identify individuals who may have resolved prior infection with SARS-CoV-2.

Objective 2.1: Accelerate the development and evaluation of diagnostic platforms

- **Support the development, characterization and availability of reagents for diagnostic validation.**

NIAID will support this effort through the development and testing of reagents for diagnostic validation that will be made available through NIAID-sponsored repositories.

Box 3
Priority 2: Support the development of diagnostics and assays
Objective 2.1: Accelerate the development and evaluation of diagnostic platforms
Objective 2.2: Develop assays to increase understanding of infection and disease incidence

- **Support the development of new rapid diagnostics.** NIAID will provide funding to support the development of new rapid diagnostics, including molecular tests and novel antigen detection tests with improved sensitivity, if deemed feasible based on natural history studies.
- **Support the evaluation of promising diagnostics.** In some cases, stakeholders that develop potential diagnostic tests do not have the infrastructure needed to rigorously validate those tests against clinical samples. NIAID will support the testing of promising diagnostics and provide the capacity for evaluating them with live virus samples using our biocontainment laboratories.

Objective 2.2: Develop assays to increase understanding of infection and disease incidence

- **Develop and validate SARS-CoV-2 serological assays.** Serological tests, which detect host antibodies to infectious agents, do not detect the presence of a pathogen directly but can be used as a surrogate marker of infection. Developing more effective serologic tests would help provide information on the extent of asymptomatic infections and cumulative disease incidence, for example through serosurveillance studies. NIAID, with the Centers for Disease Control and

Prevention and the FDA, is developing tests that identify antibodies to SARS-CoV-2 proteins to determine seroprevalence rates and potentially help distinguish antibody responses in individuals receiving vaccines. NIAID will support the development and validation of additional serological assays for serosurveillance studies and as tools for testing the efficacy of promising vaccine or therapeutic candidates.

Priority 3: Characterize and test therapeutics

Currently, there are no FDA-approved or licensed therapeutics specific for coronaviruses. While traditional development pathways for therapeutics can take years, the urgency of the current outbreak underscores the need for rapid development and testing of promising therapeutics. Possible avenues for developing therapeutics include the evaluation of broad-spectrum antiviral agents (antivirals) that have shown promise for other coronaviruses and the identification of novel monoclonal antibodies (mAbs). For broad-spectrum antivirals, Phase 2/2b testing of the RNA polymerase inhibitor developed by Gilead, remdesivir, is already underway. Additional studies will be critical to identify promising therapeutic candidates and to advance them through clinical trial testing. To optimize findings during the pandemic, multiple clinical trials will be conducted in parallel among various populations, including both inpatient and outpatient studies.

Objective 3.1: Identify promising candidates with activity against SARS-CoV-2

- **Screen protease inhibitor and nucleotide analogue class agents and other small molecules with documented activity against other coronaviruses SARS-CoV-2.** Screening drugs that are already licensed by the FDA for other indications and might be efficacious against SARS-CoV-2 infection may provide a route to identifying a therapeutic for use in the current pandemic. Broad-spectrum antivirals that are already FDA approved or in clinical development for other indications—including those previously targeting SARS-CoV-1 and MERS CoV—can be evaluated for their potential activity against SARS-CoV-2 infections. Approved therapeutics for other infectious diseases also are being evaluated as possible treatments for COVID-19. By leveraging their existing efficacy, safety, and manufacturability data, the time to development and production can be reduced. NIAID also will continue working with partners to screen compound libraries for potential activity against SARS-CoV-2. For these studies, priority will be given to compounds based on *in vitro* screening data and the existence of human safety data.

- **Identify viral targets for therapeutic development.** Advances in structural biology technology enable researchers to map key viral structures at an

unprecedented level. The Structural Genomics Centers for Infectious Diseases (SGCID) apply state-of-the-art, high-throughput technologies and methodologies, including computational modeling, x-ray crystallography, nuclear magnetic resonance imaging, and cryogenic electron microscopy, to experimentally characterize the three dimensional atomic structure of proteins that play an important biological role in human pathogens and infectious diseases. NIAID will continue to support use of this powerful technology to identify viral targets of SARS-CoV-2 for therapeutics or vaccines.

Box 4
Priority 3: Characterize and test therapeutics
Objective 3.1: Identify promising candidates with activity against SARS-CoV-2
Objective 3.2: Conduct treatment studies to advance high-priority therapeutic candidates

- **Identify novel mAbs for use as therapy or prophylaxis.** Data from early studies indicate that well-characterized convalescent plasma may provide a treatment benefit in COVID-19.⁴ Therefore, IVIG derived from convalescent plasma may also hold promise for treatment. Moreover, peripheral blood mononuclear cells and plasma are being used to identify novel neutralizing antibodies. Through collaborations with structural biologists, binding properties can be quickly assessed. Paired with assessment of neutralization activity, the most promising mAbs will be identified for further characterization in animal models and human trials.

Objective 3.2: Conduct treatment studies to advance high-priority therapeutic candidates

- **Characterize and evaluate host-directed strategies for treatment of disease.** Experience with other coronaviruses indicates that infection of the respiratory tract is rapid and damage is primarily mediated by the host inflammatory response.⁵ These conditions may make it difficult to modify COVID-19 with pathogen-directed therapeutics. Instead, host-directed strategies that target the immune response may exert a beneficial therapeutic effect. Host-directed strategies, including immune-modulating agents, will be investigated as potential therapeutic candidates.
- **Conduct clinical trials to demonstrate safety and efficacy of lead therapeutic candidates.** Many potential therapeutic candidates have been identified and are being tested in clinical trials.
 - In March 2020, NIAID launched a multicenter, adaptive, randomized controlled clinical trial to evaluate the safety and efficacy of the investigational antiviral drug remdesivir (GS-5734) for the treatment of COVID-19 in hospitalized adults with laboratory-confirmed SARS-CoV-2 infection and evidence of lung involvement. The trial builds on recent studies by NIAID scientists showing that remdesivir can improve the disease course in rhesus macaques when administered promptly after viral challenge with the MERS CoV.⁶ The trial is also adaptive, allowing for additional arms should other therapeutics warrant assessment for efficacy.
 - NIAID is finalizing the protocol for the Big Effect Trial (BET), in which putative therapeutics that have existing human data and are readily available will be tested in patients hospitalized with lower respiratory tract disease. Each potential intervention will be given to approximately 75 patients and evaluated for mitigating disease symptoms. Candidate therapeutics that meet the criteria in this initial study will be further evaluated in larger clinical trials for which the infrastructure is already in place.
 - As mentioned above, identification of novel mAbs for therapy or prophylaxis is another strategic priority. These mAbs should be safe, highly effective, amenable to fast manufacturing, and easy to administer. They will be tested in clinical trials to develop immunotherapies for the prevention and early treatment of COVID-19, potentially in high-risk populations including healthcare workers.
- **Conduct outpatient studies for mild COVID-19 cases.** In cases of mild COVID-19 that do not require hospitalization, outpatient studies could be extremely valuable for testing promising, orally administered FDA-approved drugs that have existing safety data. The antiviral activity of hydroxychloroquine and azithromycin against SARS-CoV-2 has been the focus of many early

⁴ Roback JD and Guarner J. *JAMA* 2020 Mar 27. Epub. 32219429.

⁵ Newton AH et al. *Semin Immunopathol.* 2016;38(4):471-82. PMID 26965109.

⁶ de Wit E et al. *Proc Natl Acad Sci USA* 2020;117(12):6771-6. PMID 32054787.

therapeutic studies.^{7,8,9} Testing of these and other candidates, including protease inhibitors and other molecules, in outpatient studies may provide critical efficacy data and could identify an existing drug or drug combination that is safe and effective against COVID-19.

- **Conduct outpatient studies in high-risk populations.** High-risk populations, including health care workers, the elderly or individuals with chronic conditions, are a critical target for the development of therapeutics. Conducting studies in patients with mild cases of COVID-19 among these high-risk groups would be of interest for identifying the benefits of early treatment strategies to mitigate the impact of infection. Therapeutic candidates that have once a day dosing could also be considered for pre-exposure prophylaxis (PrEP) in some of these populations.

Priority 4: Develop safe and effective vaccines against SARS-CoV-2

Developing a safe and effective SARS-CoV-2 vaccine is a priority for preventing future outbreaks of the virus. As vaccine candidates for MERS-CoV, SARS-CoV-1 and other coronaviruses have previously been developed, NIAID investigators and the scientific community are well poised to use similar approaches in the current pandemic. NIAID will leverage its broad intramural and extramural infrastructure to advance vaccine candidates through Phase 1 safety and dosing clinical trials, with considerations for Phase 2/2b clinical trials for the most promising candidates.

Objective 4.1: Advance promising vaccine candidates through clinical trial testing

- **Conduct a Phase 1 clinical trial of (mRNA) platform candidate mRNA-1273.** Given the urgency of the response effort to develop a safe and effective vaccine, NIAID is prioritizing promising vaccine candidates that can be rapidly produced and tested. NIAID, in collaboration with the biotechnology company Moderna, is conducting a Phase 1 clinical trial of a vaccine candidate that uses a messenger RNA (mRNA) vaccine platform expressing a NIAID-designed recombinant spike protein of SARS-CoV-2. The trial is being conducted at NIAID-funded clinical research sites, with the first enrolled individual receiving the vaccine on March 16, 2020.
- **Prepare for a pivotal Phase 2/2b clinical trial of candidate mRNA-1273. Preparing for the likelihood of a seasonal recurrence of SARS-CoV-2 is imperative to the public health response.** Given the theoretical risk of vaccine-enhanced respiratory disease, large Phase 2 trials are unlikely to launch until this possibility is evaluated in animal models. Planning for those animal studies is underway, and, assuming favorable results, a Phase 2/2b study could be launched later in 2020. This represents a historically fast timeline for the development and testing of a vaccine candidate. Additionally, these studies will provide information on correlates of immunity that will help accelerate the advancement of other vaccine candidates. If the mRNA-1273 vaccine candidate shows protection against SARS-CoV-2 infection in a Phase 2/2b trial, NIAID will work with government partners to ensure that the vaccine is manufactured in sufficient quantities to allow prompt distribution to those at highest risk of acquiring disease.

⁷ Gautret P et al. *Int J Antimicrob Agents*. 2020 Mar 20:105949. Epub. PMID 32205204.

⁸ Molina JM et al. 2020 *Med Mal Infect*. 2020 Mar 30. pii:S0399-077X(20)30085-8. Epub. PMID 32240719.

⁹ Chen Z et al. medRxiv 2020:2020.03.22.20040758.

<https://www.medrxiv.org/content/10.1101/2020.03.22.20040758v2>

- **Investigate additional candidates through NIAID vaccine programs.** Although promising candidates may show efficacy in preclinical studies, many do not translate into effective vaccines in clinical trials. Therefore, it is crucial to support multiple promising

Box 5. Priority 4: Develop safe and effective vaccines against SARS-CoV-2
Objective 4.1: Advance promising vaccine candidates through clinical trial testing
Objective 4.2: Advance vaccine development through assay and reagent development
Objective 4.3: Advance vaccine development through adjuvant characterization and development

preclinical candidates in the research and development pipeline. To that end, NIAID is advancing multiple additional SARS-CoV-2 vaccine candidates through its Rocky Mountain Laboratories (RML), including approaches that have shown promise against coronaviruses that cause SARS and MERS. Building on previous research to develop a MERS-CoV vaccine, scientists at RML are collaborating with Oxford University investigators to develop a SARS-CoV-2 vaccine that uses a chimpanzee adenovirus vector. RML investigators also are partnering with the biopharmaceutical company CureVac on an mRNA vaccine candidate and collaborating with the University of Washington on a universal coronavirus vaccine development. By leveraging its extensive expertise and research infrastructure, NIAID will continue working with partners and collaborators to advance promising SARS-CoV-2 vaccine candidates.

- **Leverage existing vaccine approaches to target SARS-CoV-2.** NIAID is pursuing multiple strategies to develop a COVID-19 vaccine. Building on past research on emerging pathogens, especially MERS-CoV and SARS-CoV-1 (the virus that causes SARS), NIAID is using previously developed vaccine platforms to rapidly assess the potential of SARS-CoV-2 vaccine candidates. This approach has already resulted in several promising strategies that may be leveraged for SARS-CoV-2, including vaccination using recombinant spike protein, chimpanzee adenovirus vaccine vector, virus-like particles, and live attenuated virus. In addition, NIAID is funding the development of novel vaccine candidates that will be efficacious across the lifespan, including in the elderly.

Objective 4.2: Advance vaccine development through assay and reagent development

- **Develop critical reagents to support vaccine development.** Appropriate tools are needed to identify the most promising vaccine candidates and advance the development of lead candidates as rapidly as possible. To accelerate the vaccine pipeline, NIAID is generating master and working SARS-CoV-2 virus stocks and other reagents critical for developing SARS-CoV-2 immune assays, developing quantitative tests for characterizing SARS-CoV2 assay material, developing a quantitative SARS-CoV-2-specific ELISA, developing virus-specific neutralization assays, and developing quantitative assays for assessing SARS-CoV-2 viral load.

Objective 4.3: Advance vaccine development through adjuvant characterization and development

- **Provide adjuvants to support vaccine development.** Adjuvants are vaccine components that improve vaccine efficacy by inducing long-lived protective immunity. Selection of appropriate adjuvants is crucial for developing safe and effective vaccines. NIAID is working with multiple collaborators to provide adjuvants to the research community for use in SARS-CoV-2 vaccine candidates. These adjuvants are at various stages of development and include compounds that

specifically improve vaccine efficacy in elderly individuals or modulate host immunity toward protective responses while limiting or preventing harmful inflammatory responses.

Conclusion

The sudden emergence and rapid global spread of the novel coronavirus SARS-CoV-2 has created a daunting public health challenge. To address this challenge, NIAID is focusing its considerable expertise and emerging infectious disease resources to facilitate the development of medical countermeasures including diagnostics, therapeutics, and vaccines. The resulting discoveries will not only help mitigate the current pandemic, but also inform prevention, diagnosis, and treatment of future emerging infectious diseases.

A comprehensive strategy requires a coordinated effort among governmental, academic, private, and community-based organizations. The *NIAID Strategic Plan for COVID-19 Research* defines the areas of COVID-19 research within the NIAID mission and outlines the institute's research priorities and goals. This strategic plan builds on many other national efforts and represents a commitment from multiple U.S. government agencies to improve coordination of COVID-19 research and discovery efforts and the development of medical countermeasures.

From: Lauer, Michael (NIH/OD) [E] [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=90FE9CAE30C64CFBB67ABD568E882796-LAUERM]
Sent: 6/1/2020 2:20:19 PM
To: Brandy, Aesha (NIH/OD) [C] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=52aa9651b97d41e58aff688573e4752f-brandya]
CC: Bundesen, Liza (NIH/OD) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=3cded900576a49aea461d26e93bddac3-lbundese]; Kosub, David (NIH/OD) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=3e3eccf57f4e4fcfaecaa7885f39bee5-kosubd]; Lauer, Michael (NIH/OD) [E] [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=90fe9cae30c64cfbb67abd568e882796-lauer]
Subject: Re: FOIA Request #54496
Attachments: 54496 Request.pdf

Hi Aesha – because of ongoing investigations (OIG and ODNI), we have no responsive documents.

Many thanks, Mike

From: "Brandy, Aesha (NIH/OD) [C]" (b) (6)
Date: Monday, June 1, 2020 at 9:42 AM
To: "Lauer, Michael (NIH/OD) [E]" (b) (6)
Cc: "Bunden, Liza (NIH/OD) [E]" (b) (6), "Kosub, David (NIH/OD) [E]" (b) (6)
Subject: FW: FOIA Request #54496

Hi Dr. Lauer –

Please see the attached NIH FOIA request from BuzzFeed. Would you forward responsive documents, if any, to me by COB Friday, May 5th. Let me know if you have any questions or would like to discuss.

Thanks and have a great day.

Best Regards,
Aesha Brandy, MBA*
Program Analyst
NIH Office of Extramural Research
Immediate Office of the Director

Building 1, Room 150
Bethesda, MD 20814

(b) (6)

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*Contractor

BuzzFeed News

REPORTING TO YOU

May 4, 2020

Peter Aldhous,
Science Reporter,
BuzzFeed News
415 800 3471
peter.aldhous@buzzfeed.com

FOIA Officer
NIH Office of Extramural Research
Building 31 Room 5B35
9000 Rockville Pike
Bethesda, MD 20892
nihfoia@mail.nih.gov

Dear FOIA officer,

This is a request under the Freedom of Information Act, 5 USC 552.

I am a journalist working on behalf of BuzzFeed, reporting on research relevant to the threat to human health from animal coronaviruses, and in particular the NIH's funding in this area to the EcoHealth Alliance, and the recent decision to terminate that grant.

I request the following records:

- Emails, memos, letters, text messages, and directives sent to and from Michael Lauer regarding Project Number: 2R01AI110964-06 "UNDERSTANDING THE RISK OF BAT CORONAVIRUS EMERGENCE" (see https://projectreporter.nih.gov/project_info_details.cfm?aid=9819304&icde=49778456, PI: Peter Daszak of the EcoHealth Alliance) from April 1 2020 through the date the search for responsive records is conducted.

I request these records in electronic format, such as PDF documents.

Reasonably Foreseeable Harm. The FOIA Improvement Act of 2016 amended the FOIA as follows (5 USC 552(a)(8)):

(A) An agency shall—

(i) withhold information under this section only if—

(I) the agency reasonably foresees that disclosure would harm an interest protected by an exemption described in subsection (b); or

(II) disclosure is prohibited by law; and

(ii) (I) consider whether partial disclosure of information is possible whenever the agency determines that a full disclosure of a requested record is not possible; and

(II) take reasonable steps necessary to segregate and release nonexempt information. .

The NIH Office of Extramural Research should not fail to meet the requirements of Section 552(a)(8) when processing my request and release responsive records to me in full or at least in part.

In the event some portions of the requested records are properly exempt from disclosure, please disclose any reasonably segregable non-exempt portions of the requested records. If it is your position that a document contains non-exempt segments, but that those non-exempt segments are so dispersed throughout the document as to make segregation impossible, please state what portion of the document is non-exempt, and how the material is dispersed throughout the document. If a request is denied in whole, please state specifically that it is not reasonable to segregate portions of the record for release.

Fee benefit

As a member of the media, I am entitled to be placed in the "news media, educational, or scientific requesters" category. As such, I should only be charged for duplication fees beyond the first 100 pages. Further, I assert that this request is in the public interest, because it is likely to contribute significantly to public understanding of the operations and activities of the government, and therefore request a fee waiver.

Fee waiver

Please waive any applicable fees. Release of the information is not primarily in my commercial interest and will contribute significantly to public understanding of government operations and activities. 5 U.S.C. § 552(a)(4)(A)(iii). Release of these records will explain to the public the decision to end a research project that experts are calling vital to understanding the current coronavirus pandemic and preventing another one (see <https://www.npr.org/sections/goatsandsoda/2020/04/29/847948272/why-the-u-s-government-stopped-funding-a-research-project-on-bats-and-coronaviru>).

Request for Expedited Processing

Please provide expedited processing of this request which concerns a matter of urgency. As a science reporter, I am primarily engaged in disseminating information. The public has an urgent need for information about the handling and termination of this project because it will bring information about a research effort investigating threats like the novel coronavirus that has killed tens of thousands of US citizens. The government's decision to terminate the project has clear and urgent implications for public health. The project could yield vital information for understanding the origins of the COVID-19 pandemic, and for drug design and testing. Also, if there were genuine concerns that the outbreak may have originated in an accidental release from a lab funded under this project, that is information the public has an urgent need to know.

I certify that my statements concerning the need for expedited processing are true and correct to the best of my knowledge and belief.

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

I look forward to your reply within 20 business days, as the statute requires.

Sincerely,

A handwritten signature in black ink, appearing to read 'P. Aldhous', with a stylized flourish at the end.

Peter Aldhous

on behalf of BuzzFeed