





U.S. Department of Energy officials involved in Ukrainian projects

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J. Stephen Binkley

Principal Deputy
Director in the Office of
Science (SC) at the U.S.
Department of Energy
(DOE)



Ronald Leman

Director of the Center
for Global Security
Research at the U.S.
Department of Energy's
Lawrence Livermore
National Laboratory;

Chair of the Governing
Board of International
Science and
Technology Center;
Member of the
Department of Defence
Threat Reduction
Advisory Committee



Steven Ashby

Director of the
Department of Energy's
Pacific Northwest
National
Laboratory (since
04.2015); Senior Vice
President at Battelle
(since 04.2015)



Richard Weller

Department of Energy's
Pacific Northwest
National Laboratory:

Research Scientist
(10.1980 –
04.2014) Staff Scientist
(10.1993 – 04.2005)

Senior Program
Manager (10.2005 –
04.2014)



Shawn Anderson

U.S. Department of
Energy Office Director –
Energy Attaché U.S.
Embassy Ukraine

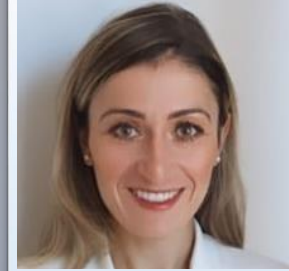
(since 11.2022)



Heather Bell

U.S. Department of
Energy Office Director –
Energy Attaché U.S.
Embassy Ukraine

(07.2018 – 07.2020,
07.2021 – 08.2021)



Valerie Brusilovsky

U.S. Department of
Energy Office Director –
Energy Attaché U.S.
Embassy Ukraine

(09.2020 – 07.2021)



Andrew Vogt

U.S. Department of
Energy Office Director –
Energy Attaché U.S.
Embassy Ukraine

(12.2014 – 07.2018)





U.S. Department of Energy involvement in implementation of dual-use projects

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Implementation of projects in Ukraine under the auspices of the Pacific Northwest National Laboratory



Pacific Northwest National Laboratory (Richland, Washington)



BRaVE main research areas

Interpretation of real-time host-pathogen dynamics for new mitigation strategies

Identifying molecular interactions at the biological scale to develop targeted interventions

Determining multi-scale ecosystem complexities for reliable epidemiological modelling

Implementing an understanding to accelerate the design, detection, and production of biohazard preparedness materials

Promoting innovation in user object instrumentation, experimental methods, and data analysis

U.S. DOE Biopreparedness Research Virtual Environment (BRaVE) Project

DEPARTMENT OF ENERGY
OFFICE OF SCIENCE
ADVANCED SCIENTIFIC COMPUTING RESEARCH (ASCR)
BASIC ENERGY SCIENCES (BES)
BIOLOGICAL AND ENVIRONMENTAL RESEARCH (BER)



FY 2023 BIOPREPAREDNESS RESEARCH VIRTUAL ENVIRONMENT (BRaVE)

DOE NATIONAL LABORATORY PROGRAM ANNOUNCEMENT NUMBER: LAB 23-2955

ANNOUNCEMENT TYPE: INITIAL

Announcement Issue Date:	January 24, 2023
Submission Deadline for Pre-Proposal:	February 28, 2023, at 5:00 PM Eastern Time
Pre-Proposal Response Date:	April 4, 2023, at 5:00 PM Eastern Time
Submission Deadline for Proposals:	May 9, 2023, at 5:00 PM Eastern Time

Section 1 - DOE NATIONAL LABORATORY OPPORTUNITY DESCRIPTION

ALL INQUIRIES ABOUT THIS ANNOUNCEMENT SHOULD BE DIRECTED TO:
BRaVE@science.doe.gov

SUMMARY

The DOE Office of Science (SC) announces its interest in receiving proposals from multi-disciplinary and multi-institutional teams led by DOE National Laboratories for support of national biopreparedness and response capabilities that can be advanced with DOE's distinctive capabilities. In 2020, DOE established the National Virtual Biotechnology Laboratory (NVBL) to assemble capabilities and expertise across all of DOE's 17 national laboratories to address key technical issues in the fight against COVID-19. Within a few months, the NVBL delivered highly impactful results that provided epidemiological information to decision makers, assessed and developed new virus testing protocols, identified high potential candidates for antiviral drugs, provided information on the fate and transport of the virus in buildings and other enclosed spaces, and delivered manufacturing solutions to stem the shortages of face masks, test kits, and other supplies. In addition, DOE's user facilities supported researchers from academic, industry, and government in the fight against COVID-19, including providing x-ray structural information that supported the development of all three vaccines approved in the U.S., as well as FDA-approved antiviral drugs and antibodies. In FY 2022, Biopreparedness Research Virtual Environment (BRaVE) was initiated, which leverages the highly successful framework established by the NVBL and broadens its capabilities to provide new capabilities for biopreparedness, taking advantage of its unique capabilities and facilities in physical, computational, and life sciences and its integrative, cross-disciplinary, and collaborative tradition across experiments, models, and analyses.

Towards this goal, SC announces its interest in receiving research proposals from multi-disciplinary and multi-institutional teams led by DOE National Laboratories to advance capabilities in biopreparedness and response capabilities that can be advanced with DOE's distinctive capabilities. Achieving these research objectives would revolutionize our understanding of the science underlying a range of potential biological events and transform the nation's ability to prepare for, and respond to, future biological threats. Research supported by this program announcement may be synergistic with various activities from other federal agencies, such as the Centers for Disease Control and the National Institutes of Health.

SUPPLEMENTAL INFORMATION

'...Achieving these research objectives would revolutionize our understanding of the science underlying a range of potential biological events and transform the nation's ability to prepare for, and respond to, future biological threats.'

A. TYPE OF AWARD INST
DOE anticipates awarding lab
Program Announcement.

Any awards made under this
between DOE and the awardee.

B. ESTIMATED FUNDING

DOE expects a total of \$105 million in current and future fiscal year funds will be used to support activities proposed under this Announcement, subject to the availability of future year appropriations.

DOE is under no obligation to pay for any costs associated with the preparation or submission of an application. DOE reserves the right to fund, in whole or in part, any, all, or none of the

\$105 mln in current and future fiscal year funds...

'...In 2020, DOE established the National Virtual Biotechnology Laboratory (NVBL) to assemble capabilities and expertise across all DOE's 17 national laboratories to address key technical issues in the fight against COVID-19. Within a few months, the NVBL delivered highly impactful results...'

Information from the U.S. Chamber of Accounts on the accumulation of funds at the Department of Energy

FEDERALTIMES

Energy Department offices fail to spend over \$14 billion in allocated funds

By Molly Weisner



Energy Department offices fail to spend over \$14 billion in allocated funds

A report from the U.S. Government Accountability Office found that while most federal funding has an expiration date, with unspent funds returned to the U.S. Treasury, the Department of Energy receives billions of dollars in allocations that are not time-limited, with unspent funds carried over from one year to the next.

For fiscal 2021, a total of \$14.1 billion accumulated in carryover balances from the department's Office of Environmental Management and the National Nuclear Security Administration, it said.

These massive rollovers happen because many funds appropriated to EM and NNSA by Congress are available until they are expended. With the authority to keep hold of "no-own" funds, these offices may retain resources that could be put to other uses.

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'...For fiscal 2021, a total of \$14.1 billion accumulated in carryover balance...'

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On the other hand, the report also found reasons for the accumulation of carryover balances, and the increased over four of the past five fiscal years. COVID-19 pandemic. For example, an office may keep un-costed balances to ensure that they can continue operations with the limited

Statement by Robert Kennedy Junior on military-biological researches



'...[In the early 2000s], (Washington) immediately started giving \$2 billion a year to bioweapons development. The Pentagon didn't want to do it because it was nervous about the legality, cause it was a death penalty to violate the Geneva Convention...
...And so they funneled it through DETRA ad DAPRA. They funneled all of that money to NIH to NIAID, which became the primary spear tip of bioweapons development. So Tony Fauci became the bioweapon czar in 2001...'

P-157 Project

P-171 Project

P-158 Project

P-172 Project

P-163 Project

P-316 Project

P-168 Project

P-490 Project



Study of avian influenza, Newcastle disease, paramyxoviruses among wild birds from the Azov-Black Sea region within the framework of P444 Project.

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Partner Project Agreement P444

P444 PROJECT

Monitoring of Avian influenza, Newcastle disease, Paramyxoviruses among wild birds from Azova-Black Sea region

PARTNER PROJECT AGREEMENT P444
between
USDA Agriculture Research Service
the Science and Technology Center in Ukraine,
and
National Scientific Centre, "Institute of Experimental and Clinical Veterinary Medicine"

Kyiv

Operative Commencement Date: September 1, 2010...

Agri-PH-001 (2009/21)

**Partner Project Agreement P444
between USDA Agriculture Research Service
the Science and Technology Centre in Ukraine,
and National Scientific Centre, 'Institute of Experimental
and Clinical Veterinary Medicine'**

'...Monitoring of Avian influenza, Newcastle disease, Paramyxoviruses among wild birds from Azova-Black Sea region...'

Human cases of highly pathogenic avian influenza (2009–2023)

Cumulative number of confirmed human cases for avian influenza A(H5N1) reported to WHO, 2003-2023

Country	2003-2009*		2010-2014*		2015-2019*		2020		2021		2022		2023		Total	
	cases	deaths	cases	deaths	cases	deaths	cases	deaths	cases	deaths	cases	deaths	cases	deaths	cases	deaths
Azerbaijan	8	5	0	0	0	0	0	0	0	0	0	0	0	0	8	5
Bangladesh	1	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0
Cambodia	9	7	47	30	0	0	0	0	0	0	0	0	2	1	58	38
Canada	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1	1
China	38	25	9	5	6	1	0	0	0	0	1	1	1	1	55	32
Djibouti	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Ecuador	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0
Egypt	90	27	120	50	149	43	0	0	0	0	0	0	0	0	359	120
India	1	0	0	0	0	0	0	0	1	1	0	0	0	0	2	1
Indonesia	162	134	35	31	3	3	0	0	0	0	0	0	0	0	200	168
Iran	3	2	0	0	0	0	0	0	0	0	0	0	0	0	3	2
Laos	2	2	0	0	0	0	1	0	0	0	0	0	0	0	3	2
Myanmar	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Nepal	0	0	0	0	1	1	0	0	0	0	0	0	0	0	2	1
Nigeria	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Pakistan	3	1	0	0	0	0	0	0	0	0	0	0	0	0	3	1
Spain	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0
Thailand	25	17	0	0	0	0	0	0	0	0	0	0	0	0	25	17
Turkey	12	4	0	0	0	0	0	0	0	0	0	0	0	0	12	4
United Kingdom of Great Britain and Northern Ireland	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0
United States of America	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0
Viet Nam	112	57	15	7	0	0	0	0	0	0	0	0	0	0	127	64
Total	488	282	233	125	160	48	1	1	2	1	6	1	3	1	873	456

* 2003-2009, 2010-2014 and 2015-2019 total figures. Breakdowns by year available on subsequent tables.
Total number of cases includes number of deaths.
WHO reports only laboratory-confirmed cases.
All data refers to cases of illness.
Source: WHOISDP, data in HQ as of 3 March 2023



Чрезвычайные ситуации

Общая информация

Новости о вспышках болезней

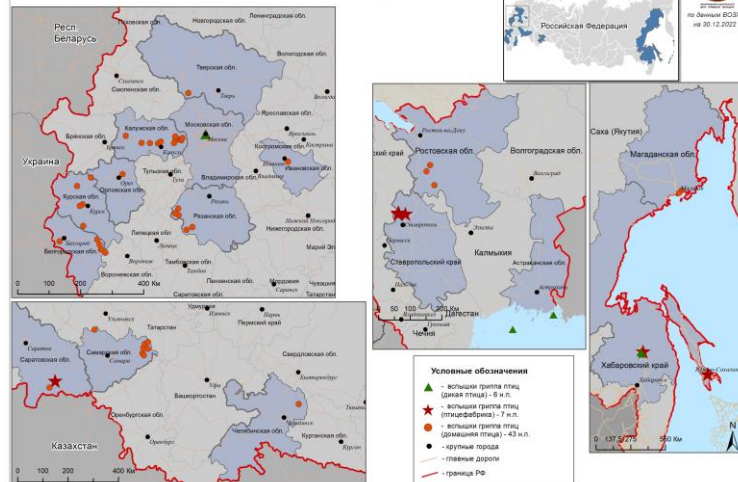
Последние новости ВОЗ о вспышках болезней, содержащие информацию о подтвержденных чрезвычайных событиях в области общественного здравоохранения или предполагаемых событиях, вызывающих обеспокоенность.

Заражение человека вирусом гриппа птиц A(H5N1) – Чили

21 апреля 2023 г.

Outbreaks of highly pathogenic avian influenza in Russia and worldwide

Avian influenza outbreaks in the Russian Federation in 2022

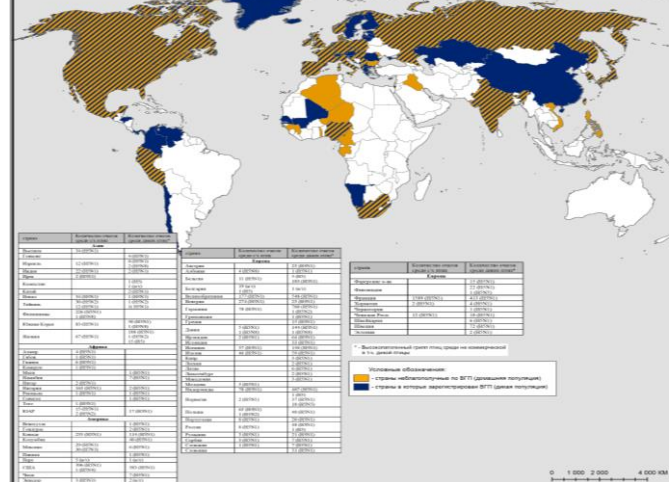


In the Russian Federation in 2020–2022,

the damage exceeded RUB 4,500,000,000.0,

with more than 10,000,000 poultry eliminated

Outbreaks of highly pathogenic avian influenza worldwide (WHO, 2022)



In Europe in 2020–2022,

the damage amounted to €3,000,000.0

'...Avian influenza is no longer just a seasonal threat <...> Poultry farmers expect avian influenza throughout the year...'

Geflügelzüchter rechnen innerhalb eines Jahres mit der Vogelgrippe

Laut der Geflügelindustrie im Nordosten ist die Vogelgrippe nicht mehr nur eine saisonale Bedrohung. Umso wichtiger sind die Vorkehrungen und eventuell das neue Tool.



Geflügelzüchter rechnen innerhalb eines Jahres mit der Vogelgrippe

Geflügelzüchter im Nordosten des Landes rechnen künftig mit einer ganzjährigen Bedrohung durch die Vogelgrippe. „Früher trat dieser Erreger saisonal auf“, sagt Silvia Ey, Geschäftsführerin des Geflügelverbandes Mecklenburg-Vorpommern. Sicht aus, als wäre es vorbei. Geflügelzüchter erwarten das ganze Jahr über Vogelgrippe – die Krankheit wird sich gleichmäßig manifestieren.



Study of pathogens of economically significant infections with biosafety violations

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Ukrainian experts involved in the Active Surveillance in Wild Birds project



Denis Muzyka

Deputy Director for International Cooperation, National Scientific Centre of Experimental and Clinical Veterinary Medicine (IECMV), Head of the Laboratory of Poultry Viral Diseases at IECVM



Viktor Gavrilenko

Director of the Falz-Fein Biosphere Reserve "Askania Nova" of the National Academy of Agrarian Sciences of Ukraine (since 1995), scientist-biologist and ecologist, specialist in the field of nature conservation and environmental protection



Aleksandr Mezinov

Director of the Falz-Fein Biosphere Reserve "Askania Nova" of the National Academy of Agrarian Sciences of Ukraine (since 2001)

Implementation of the Active Surveillance in Wild Birds project

STCU PARTNER PROJECT PROPOSAL P PR-1

1. Title of Project: **Active surveillance in wild birds**

1. Partner (signing authority to partner project agreement)

'Project's Title: Active Surveillance in Wild Birds'

2. Participating CIB Institution(s): National Scientific Centre Institute of Experimental and Clinical Veterinary Medicine Address: Kyiv, 01020, Ukraine, Pashkivska, 80 Tel.: +380 22 795 20 03 Fax: +380 22 795 30 90 E-mail: _none_

3. Participating CIB Institution(s): the Falz-Fein Biosphere Reserve "Askania Nova" Address: Ukraine, 75220, Askania-Nova, Zerkovka, 13 Tel.: +380 0338 6 12 32 Fax: +380 0338 6 12 32 E-mail: askania.nova@gmail.com

4. Person-days of Effort of Weapons Scientists/ Total Person-days of Effort: 16/120

5. Project Duration: 22

6. Total Estimated Project Cost

Payments to participants	2200
Equipment	1800
Materials	1800
Other Direct Costs	6000
Travel	2000
Overhead	3000
Estimated Project Cost	15000
STCU Fee	5
Total Cost	33200
Financial Contribution from Partner	33200

Non-Financial Contributions from Partner from CIB Participating Institutions

7. Project Location and Equipment Location (s): Department of Asian Diseases National Scientific Centre Institute of Experimental and Clinical Veterinary Medicine

PARTICIPATING INSTITUTION CONCURRENCE PR-4

Title of Project: Active surveillance in wild birds

Participating Institution: the Falz-Fein Biosphere Reserve "Askania Nova" has reviewed the above project proposal and fully supports the goals and activities described in it. We acknowledge the significant importance of the project for the National Academy of Agrarian Sciences of Ukraine and to the relevant conditions required by the Agreement establishing the STCU, the STCU Status, decisions of its Governing Board, and by a Partnering Agreement that the institution may enter into with the STCU and Lvivska University.

Name and signature of individual authorized to make comments on behalf of institution:

Name: Hanyukov Viktor

Title: Director

Signature:

Date:

"Participating institution — the Falz-Fein Biosphere Reserve "Askania Nova"

viruses

Article

Discovery of Avian Paramyxoviruses APMV-1 and APMV-6 in Shorebirds and Waterfowl in Southern Ukraine

Any C. Khil*, Oleksandr Ruda*, Mykola Sushko*, Maksym Boryshenko*, Oleksandr Maloshin*, Oleksandr Gaiduk*, Yana Ruda*, Anton Danylyuk*, Myroslava Saporoshna*, Roman Galanin*, Sergiy Shumilov*, Mykhailo Vashchenko*, Mykhailo Bilal*, Larysa Nizhnyk*, Larysa Kovalenko*, Anna Lisa Bichukova*, Andriy Moshynskiy*, Iryna Buzina*, Olexa M. Danylo*, Olegas Ciesly*, Dorota Strycharz*, Anna Gorbunova*, Eric Bente* and Dorota Mazycka*

'Utilization of this low cost method will identify gaps in viral evolution ad circulation in this understudied but important critical region for Eurasia'

Keywords: viral ecology; surveillance of avian paramyxoviruses (APMV); wild birds; non-invasive sequencing methods; Askan-Nova Biosphere Reserve in Ukraine

Act of handover of bio-samples collected during mass mortality of poultry in Askania Nova Nature Reserve in 2021

Акт № 2 від 29.03.2021

про передачу зразків біоматеріалу з Біосферного заповідника «Асканія-Нова» Інституту зоології ім. І.І. Шмальгаузена НАН України

Згідно Договору № 1-2021 про наукову співпрацю між Біосферним заповідником «Асканія-Нова» Інституту зоології ім. І.І. Шмальгаузена НАН України та Інститутом зоології ім. І.І. Шмальгаузена НАН України для проведення паразитологічних досліджень з Біосферного заповідника «Асканія-Нова» Інституту зоології ім. І.І. Шмальгаузена НАН України

Зразки зразків: *Gallus gallus* L., 1811 – 46 шт.; *Oreoparus ferrugineus* Pall., 1764 – 23 шт.; *Corvus frugilegus* L., 1758 – 32 шт.; *Corvus monedula* L., 1758 – 22 шт.; *Anas platyrhynchos* L., 1758 – 2 шт.; *Buteo lagopus* Temminck, 1760 – 1 шт.; *Larus cachinnans* (Gmelin, 1760) – 1 шт.; *Myiarchus cinerascens* (Linn., 1758) – 2 шт.

Від Біосферного заповідника «Асканія-Нова» НАН України

Сторони узгодили передачу зразків біоматеріалу (біоматеріалу) з Біосферного заповідника «Асканія-Нова» Інституту зоології ім. І.І. Шмальгаузена НАН України

Науковий співробітник Інституту зоології ім. І.І. Шмальгаузена НАН України

29.03.2021

'Act No. 2 of 29.03.2021 on transfer of biomaterial samples from the Falz-Fein Biosphere Reserve "Askania Nova" of the National Academy of Sciences to the I.I. Schmalhausen Institute of Zoology of National Academy of Sciences of Ukraine'

'Gris communis, 46; Tadorna ferruginea, 23; Corvus frugilegus, 32; Corvus monedula, 22; Anas platyrhynchos, 2; Buteo lagopus, 1; Anser albifrons, 1; Larus cachinnans, 2'

Study of pathogenic biomaterials in violation of biosafety requirements

