



SCIENCE & TECHNOLOGY
CENTER IN UKRAINE

To all Funding Parties

Subject: Application to the STCU Governing Board for approval of Partner activity by the U.S. Department of Defence/Defence Threat Reduction Agency/Biological Threat Reduction Project, United States of America.

Please find attached material to support an application to the Board for out-of-cycle approval of the Partner activity through the STCU to be funded by the U.S. Department of Defence/Defence Threat Reduction Agency/Biological Threat Reduction Project, United States of America. The Ukraine Government has given concurrence for this work (please see attachment).

This activity follows the requirements specified by the STCU Agreement. We hope that the Parties and the Board will support the proposed Partnership project (P364) "Evaluation of arthropod-borne infections in Ukraine ". This project is recognized as scientific valued and useful for the development of Ukraine science and integration of Ukraine into the international scientific community. The proposed project will be funded at the level of US\$ 125000 and will run 9 months. As we do for our regular project proposals, we have documented previous weapons experience for the proposed participants (not attached). More than 61 % of the proposed participants are former weapons scientists.

We hope the Parties and the Board will concur in our involvement in this activity.

Sincerely Yours,

Andrew Hood
Executive Director

ДОЗВІЛ № 2805

на вивезення матеріалів за кордон

Виданий представнику Українського науково-технологічного центру
(назва міністерства, відомства, організації)

Матеріали проекту **№Р-364** **Оцінка, пов'язаних з переносниками**

(найменування або опис матеріалів: кількість аркушів, одиниць,

інфекцій в Україні

інші ознаки, які дозволяють встановити, що дозвіл видано саме на ці матеріали)

українською мовою -

арк.; англійською мовою -

арк.

Направляється до Європейського Союзу, США, Канади та Японії
(країна призначення або назва міжнародного закладу на території України)

Чи підлягають ліцензуванню **не підлягають**

ЗВОРОТНИЙ БІК ДОЗВОЛУ
на вивезення матеріалів за кордон

Одержано дозвіл
Міністерства освіти і науки України
(назва міністерства, відомства, організації)

Заступник Міністра



(посада, особистий підпис посадової особи)

(дата)

М.В. Стріха

м. Київ

Translated from Ukrainian

Concurrence # 2805

Issued to the representative of the STCU

Printed matter of project # P364 "Evaluation of arthropod-borne infections in Ukraine " (in Ukrainian language – 5 pages; in English language – 5 pages) can be send to European Union, USA, Canada and Japan.

There is no need to obtain license.

The Ministry of Science and Education of Ukraine has concurred.

M. Strikha

First Deputy Minister
Signature

Stamp

16 May 2008

Kyiv

1. **Title of Project:** Evaluation of arthropod-borne infections in Ukraine

2. **Partner** (signing authority to partner project agreement): Shawn Cali, U.S. Department of Defence/Defence Threat Reduction Agency/Biological Threat Reduction Project

Address: United States of America, 22060, Fort Belvoir, 8725 John J. Kingman Road

Tel: +1.703 7671710 **Fax:** +1.703 7677794 **E-mail:** Shawn.cali@dtra.mil

2. **a. Technical Monitor** (partner's designee to oversee project progress, review project reports and other deliverables): William Nicolson, Centers for Disease Control and Prevention

Address: United States of America, 30333, Atlanta, Mail Stop G-13, 1600 Clifton Road

Tel: +1.404 6391095 **Fax:** +1.404 6394436 **E-mail:** wnicholson@cdc.gov

3. **Project Manager** (list name and title of overall project leader and contact information): Kurhanova Iryna Ivanivna

Address: Ukraine, 79005, Lviv, 12, Zelena St

Tel: +380.32 2763135 **Fax:** +380.32 2763067 **E-mail:** rickettsia@list.ru

3. **a. Participating CIS Institution(s):** Lviv Research Institute of Epidemiology and Hygiene MPH of Ukraine

Address: Ukraine, 79005, Lviv, 12, Zelena St

Tel: +380.32 2763135 **Fax:** +380.32 2763067 **E-mail:** rickettsia@list.ru

b. Participating CIS Institution(s): Ukrainian Research Anti-Plague Institute MPH of Ukraine

Address: Ukraine, 65003, Odesa, Tserkovnaya 2/4

Tel: +380.48 7238172 **Fax:** +380.48 7238172 **E-mail:** pl258396@ukr.net

c. Participating CIS Institution(s): Central Sanitary Epidemiological Station MPH of Ukraine

Address: Ukraine, 04071, Kyiv, Yaroslavskaya Street, 41

Tel: +380.44 4173558 **Fax:** +380.44 4173775 **E-mail:** cses@g.com.ua

4. **Person-days of Effort of Weapons Scientists/ Total Person-days of Effort:** 889/1523

5. **Project Duration:** 9

6. **Total Estimated Project Cost**

Payments to participants	<u>50000</u>
Equipment	<u>16170</u>
Materials	<u>5055</u>
Other Direct Costs	<u>32110</u>
Travel	<u>11115</u>
Overhead	<u>10550</u>
Estimated Project Cost	<u>125000</u>
STCU Fee	<u>0</u>
Total Cost	<u>125000</u>

Financial Contribution from Partner 125000

Non-financial Contributions

from Partner

from CIS Participating Institutions

7. Project Location and Equipment Location (s):

The project will involve the assessment of arthropod-borne infections, with a particular focus on rickettsial infections and Q fever. The assessment will involve a comprehensive approach of vector surveillance, sero-epidemiologic investigations and determination of the causes of acute febrile illness. Initially, the project will focus on selected regions in Western Ukraine for the assessment of causes of tick-borne infections, and will transition into assessment of louse-borne infection. A final portion of the Project Development Grant will involve developing plans for assessment of tick-borne encephalitis from 2009 and lice-borne infections and Q fever from 2008, arboviruses from 2009 and tularamia from 2009

PARTICIPATING INSTITUTIONS

PR-2

(Provide the following information for each participating institution)

Name of Institution: Lviv Research Institute of Epidemiology and Hygiene MPH of Ukraine

Address: Ukraine, 79005, Lviv, 12, Zelena St

Tel: +380.32 2763135 **Fax:** +380.32 2763067 **E-mail:** rickettsia@list.ru

Name and signature of individual authorized to make commitments on behalf of Institution:

Name: Tarasyuk Oleksandra Oleksandrivna

Title: Director

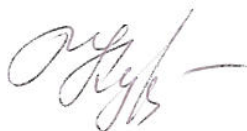
Signature (stamp):



Institution Project Leader:

Name: Kurhanova Iryna Ivanivna

Title: Chief of Laboratory (Rickettsial laboratory)



Cost Estimate (in U.S.dollars)

Payments to participants	<u>43700</u>
Equipment	<u>16170</u>
Materials	<u>5055</u>
Other Direct Costs	<u>32110</u>
Travel	<u>9635</u>
Overhead	<u>10550</u>
Estimated Cost	<u>117220</u>

PARTICIPATING INSTITUTIONS

PR-2

(Provide the following information for each participating institution)

Name of Institution: Central Sanitary Epidemiological Station

Address: Ukraine, 04071, Kyiv, Yaroslavskaya Street, 41

Tel: +380.44 4173558 **Fax:** +380.44 4173775 **E-mail:** cses@g.com.ua

Name and signature of individual authorized to make commitments on behalf of Institution:

Name: Nekrasova Lyubov Sergiivna

Title: Director

Signature (stamp):

Institution Project Leader:

Name: Svita Victor Mykolajovich

Title: Deputy Director

Cost Estimate (in U.S.dollars)

Payments to participants	<u>3150</u>
Equipment	<u>0</u>
Materials	<u>0</u>
Other Direct Costs	<u>0</u>
Travel	<u>760</u>
Overhead	<u>0</u>
Estimated Cost	<u>3910</u>

PARTICIPATING INSTITUTIONS

PR-2

(Provide the following information for each participating institution)

Name of Institution: Ukrainian Research Anti-Plague Institute

Address: Ukraine, 65003, Odesa, Tserkovna 4

Tel: +3 8048 7238172 **Fax:** +3 8048 7238172 **E-mail:** pl258396@ukr.net

Name and signature of individual authorized to make commitments on behalf of Institution:



Name: Pozdnyakov Sergey Vasilievich

Title: Director

Signature (stamp):

Institution Project Leader:

Name: Pozdnyakova Lyudmyla Ivanivna

Title: Senior Staff Scientist (immunology)

Arthropod-borne infections substantially affect human health worldwide. The Lviv Research Institute of Epidemiology and Hygiene (LRIEH) has a long history of investigating arthropod-borne infections throughout Ukraine, and has historical data on infections such as epidemic typhus, Q-fever and tick-borne encephalite. Ticks and lice are the transmitting vector for numerous infections. The LRIEH has expressed substantial interest in investigation of these rickettsial infections and arboviral infections in Western Ukraine. Q-fever (*Coxiella burnetii*) is typically acquired through aerosol inhalation, tick-borne transmission may be a possible route of infection. Lice-borne epidemic typhus (*Rickettsia prowazekii*) and trench fever (*Bartonella quintana*) are classically transmitted by body lice, while the role of head lice as vectors has not been fully resolved. The district of Jaworow near Lviv has been selected as a suitable study site due to its historical documentation as an area with substantial typhus activity in 1922-1937 and Q-fever in 1960-1970. The project development grant will provide the resources to develop a plan for an expansion of the effort to additional sites in Ukraine: to estimate the distribution of rickettsial infections transmitted by human lice by conducting a study of the immunological structure and morbidity; to research the head and body louse infections with *Rickettsia prowazekii* and *Bartonella quintana*; to study the spread of pediculosis in the targeted region on the basis of official statistical data and new investigations on various population groups; to define the risk groups associated with the distribution of louse-borne rickettsial infections; to implement and evaluate new diagnostic methods for louse-borne rickettsial diseases, as PCR and ELISA. A polymerase chain reaction (PCR) assay for the detection of *R. prowazekii* DNA and a PCR assay for the detection of *B. quintana* DNA will be employed. The appropriate specimens for this assay include whole blood collected with EDTA for febrile patients.

Arboviruses, such as the mosquito-borne West Nile virus, are also suspected to occur commonly in Ukraine. The arbovirus laboratory at the LRIEH has investigated arboviruses in Ukraine for many years. The application of modern diagnostic techniques in the investigation of these arboviruses will likely reveal a substantial background prevalence of infections such as West Nile Fever virus (WNV). LRIEH is currently engaged in a project to assess various arboviruses. The results of this project should provide data for hypothesis development during the time period of this Project Development Grant.

The project will be conducting in two stages

Stages 1 - Project Develop Grant (PDG)

The period of the PDG is 9 months. LRIEH is currently engaged in a project "Number 3566 "Monitoring of West Nile fever and other arboviral infections in Ukraine" to assess various arboviruses WNV .

The following objectives deliverables will be accomplished during the nine month project:

1. Completion of assessment of current capacity for clinical, epidemiologic, vector surveillance and laboratory diagnostic research. This assessment will include identification of supply, equipment, and training needs. This assessment will be summarized in a document.
2. Development of schedule for obtaining necessary equipment and supplies, along with training schedule. The goal is to achieve proficiency in the basic aspects of laboratory, epidemiology and clinical research by the completion of the project.
3. Development of detailed work plan, to outline the next three years of the project, but describe investigative efforts into the pathology and immune response in patients with co-infection of different pathogens. Additional exploration into vector co-infection will also be explored. Central SES and Anti-Plague Institute will assist in partner project.
4. Select diagnostic tests to support the different phases of the project.
5. Prepare to conduct a small-scale, initial vector surveillance and seroprevalence study in

a selected area in Western Ukraine, in coordination with the LRIEH.

Stages II. Full Scale Project (FSP)

During stages two, FSP "Evolution of arthropod-borne infections in Ukraine" will be consist. This project may involve more organizations (Central Sanitary Epidemiological Station (CSES) and Ukrainian Research Anti-Plague Institute (URAPI)), which work in this field. LRIEH will focus on lice-borne infections, Q fever, tick-borne encephalitis; URAPI will focus on tularemia and tick-borne encephalitis. CSES will make any research and keeping cooperation agreement on the all infections, special attention to tularemia. The possibility of the continue FSP may be after evaluation by the Partner.

Although all of these infections can be investigated in the context of the project, the following prioritization is proposed:

- 1.lice-borne infections (from 2008)
- 2.Q fever (from 2008)
- 3.tick-borne encephalitis (from 2009)
4. tularemia (from 2009)
5. arboviruses, with a focus on mosquito-borne infections (from 2009).

Title of Project: Evaluation of arthropod-borne infections in Ukraine


Participating Institution Lviv Research Institute of Epidemiology and Hygiene MPH of Ukraine has reviewed the above project proposal and fully accepts the goals and activities described in it. We acknowledge that project support from the Science and Technology Center in Ukraine (STCU) will be subject to the relevant conditions required by the Agreement establishing the STCU, the STCU Statute, decisions of its Governing Board, and by a Partnering Agreement that the institution may enter into with the STCU and U.S. Department of Defence/Defence Threat Reduction Agency/Biological Threat Reduction Project.

Name and signature of individual authorized to make commitments on behalf of Institution:

Name: Tarasyuk Oleksandra

Title: Director

Signature (stamp):



Date:

21.03.2008

Title of Project: Evaluation of arthropod-borne infections in Ukraine

Participating Institution Central Sanitary Epidemiological Station has reviewed the above project proposal and fully accepts the goals and activities described in it. We acknowledge that project support from the Science and Technology Center in Ukraine (STCU) will be subject to the relevant conditions required by the Agreement establishing the STCU, the STCU Statute, decisions of its Governing Board, and by a Partnering Agreement that the institution may enter into with the STCU and U.S. Department of Defence/Defence Threat Reduction Agency/Biological Threat Reduction Project.

Name and signature of individual authorized to make commitments on behalf of Institution:

Name: Nekrasova Lyubov

Title: Director

Signature (stamp):



Date:

17.03.2008

Title of Project: Evaluation of arthropod-borne infections in Ukraine

Participating Institution Ukrainian Research Anti-Plague Institute has reviewed the above project proposal and fully accepts the goals and activities described in it. We acknowledge that project support from the Science and Technology Center in Ukraine (STCU) will be subject to the relevant conditions required by the Agreement establishing the STCU, the STCU Statute, decisions of its Governing Board, and by a Partnering Agreement that the institution may enter into with the STCU and U.S. Department of Defence/Defence Threat Reduction Agency/Biological Threat Reduction Project.

Name and signature of individual authorized to make commitments on behalf of Institution:

Name: Pozdnyakov Sergey Vasilievich

Title: Director

Signature (stamp):



Date: 12.03.2008

CIS PARTICIPANTS IN STCU PROJECTS

List all participants who will devote at least 10% work time (based on a 220-day work year) per year to the project and who will receive payment from the STCU.

1. Former Weapons Scientists, Engineers and Technicians

Name	Data of Birth	Previous Area of Expertise (WMD code)	Area of Project Expertise	Scientific Rank	Work days	Daily Rate
Kurhanova Iryna	20.09.1954	1.3	Chief of Laboratory (Rickettsial laboratory)	PhD	160	35
Tarasyuk Oleksandra	03.06.1950	1.3	Director	PhD	49	35
Sagajdakovs'kyj Mykola	04.01.1931	1.3	Senior Staff Scientist (epidemiology)	PhD	82	34
Kushnir Zenon	02.07.1954	1.3	Senior Staff Scientist (epidemiology)	Specialist	82	34
L'esnyy Evgen	20.01.1941	1.3	Juniors Staff Scientist (biology)	Specialist	82	32
Kitsara Mechyslav	12.03.1941	1.3	Staff Scientist (biology)	Specialist	82	32
Biletska Halyna	12.01.1946	1.3	Senior Staff Scientist (biology)	PhD	90	34
Lozynskyy Igor	09.07.1954	1.3	Chief of laboratory (Transmissible Viral Infections laboratory)	PhD	90	34
Lukyanchuk Vasyl	30.08.1951	1.3	Senior Staff Scientist (epidemiology)	PhD	82	34
Svita Victor	25.07.1948	1.3	Deputy Director	Specialist	90	35

2. Other Scientists, Engineers and Technicians

Name	Data of Birth	Previous Area of Expertise	Area of Project Expertise	Scientific Rank	Work days	Daily Rate
Chipak Natalia	02.04.1972	0	Staff Scientist (biology)	Specialist	140	34
Bek Nataliya	19.07.1968	0	Juniors Staff Scientist (epidemiology)	Specialist	83	32
Pasel's`ka Natalia	24.06.1979	0	Laboratory assistant	Assistant	75	28
Lazar Myroslava	09.11.1981	0	Laboratory assistant	Assistant	76	28
Bubnij Ulyana	26.01.1985	0	Laboratory assistant	Assiastant	75	28
Isaeva Halyna	02.08.1946	0	Translator	PhD	59	31
Kutelmakh Roman	20.05.1983	0	I.T.assistant	Specialist	36	30
Poznyakova Lyudmyla	11.06.1951	0	Senior Staff Scientist (immunology)	PhD	90	35