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## Review of Research Proposals for Cooperation with Former Soviet Biological Weapons Personnel and Institutes: Letter Report from June 27, 2005 Review

Committee on the Review of Research Proposals for Cooperation with Former Soviet Biological Weapons Personnel and Institutes

Development, Security, and Cooperation

Policy and Global Affairs

## NATIONAL RESEARCH COUNCIL OF THE NATIONAL ACADEMIES

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August 15, 2005

Gavin Braunstein, Ph.D. Project Manager, Biological Weapons Proliferation Prevention Defense Threat Reduction Agency U.S. Department of Defense John Kingman Drive, MSC 6201 Fort Belvoir, VA 22060-6201

Dear Dr. Braunstein:

On behalf of the National Research Council's Committee on the Review of Research Proposals for Cooperation with Former Soviet Biological Weapons Personnel and Institutes, I am pleased to transmit the committee's ratings of proposals considered at our June 27, 2005 meeting. This review is in accordance with Contract No. DTRA01-02-D-003, Task Order #3, between the National Academies and the U.S. Department of Defense.

The committee reviewed the following research proposals, listed in alphabetical order, at the June 27, 2005, meeting:

- 1) UZ-10, Ecological and Virological Study of Arbovirus Infections in the South Aral Region of Uzbekistan
- 2) KZ-27, Epizootological Monitoring and Biological Characterization of the Avian Influenza Virus
- 3) GG-13, Isolation, Distribution, and Biodiversity of Selected Vibrios and Their Bacteriophages from Aquatic Environments in Georgia
- 4) KZ-16, Research on a New Highly Immunogenic Strain from *Francisella tularensis, subspecies mediaasiatica*, a Candidate for Human Vaccine

Each proposal was rated on the following five evaluation criteria:

- Scientific importance of the topic;
- Quality and capacity of the principal investigator, research team, and facilities;
- Provision for strong U.S. collaborators;
- Engagement of former Soviet biological weapon expertise and promotion of transparency; and
- Sustainability of the research following project completion.

Attachment 1 contains the committee's composite ratings for each proposal, based on examination of the proposal by all committee members, previous site visits by committee members to the institutes or laboratories in question, and thorough discussion at the meeting. A detailed description of the proposal review process is provided in Attachment 2.

In developing these ratings, committee members drew on their extensive expertise in biological weapons research and its peaceful applications, along with years of experience with biological weapons institutes in the Former Soviet Union. They also used their familiarity with a wide range of U.S. bioscientists to identify potential collaborators. A list of committee members is contained in Attachment 3.

The committee understands that the funding decision for each proposal is DTRA's responsibility, based on the proposal's fit with DTRA's research priorities and other factors. Some proposals for research that is scientifically important but outside the area of DTRA's interest may more appropriately be referred to other agencies. Others rated highly for scientific importance, but lacking in one or more of the other evaluation criteria, may be appropriate for further development and resubmission. Research proposals that are viewed by the committee as of very high technical risk given the constraints of the state of the science have not received high ratings.

We hope these assessments will be helpful to DTRA in making funding decisions in this critical area of research collaboration.

Sincerely,

David Franz, *Chair* Committee on the Review of Research Proposals for Cooperation with Former Soviet Biological Weapons Personnel and Institutes

Attachment 1

### **Composite Ratings of Proposals in Alphabetical Order**

# UZ-10, Ecological and Virological Study of Arbovirus Infections in the South Aral Region of Uzbekistan

Scientific importance of the topic

Highly	Х	Important	Minimal	Not Important	Insufficient
Important			Importance		Information

Quality and capacity of the PI, research team, and facilities

High Quality and	Х	Medium Quality	Low Quality and	Insufficient	
Highly Capable		and Capable	Not Capable	Information	

Provision for strong U.S. collaborators

	Collaborators	Collaborators Identified	No	Insufficient
	Identified and	but not informed or	Collaborators	Information
X	Interested	uninterested or unqualified	Identified	

Engagement of former Soviet BW expertise and promotion of transparency

Excellent	Х	Good	Little	Insufficient
Transparency		Transparency	Transparency	Information

Х	Sustainable	Unsustainable	Insufficient
			Information

# KZ-27, Epizootological Monitoring and Biological Characterization of the Avian Influenza Virus

Scientific importance of the topic

Х	Highly	Important	Minimal	Not Important	Insufficient
	Important		Importance		Information

Quality and capacity of the PI, research team, and facilities

High Quality and	Х	Medium Quality	Low Quality and	Insufficient
Highly Capable		and Capable	Not Capable	Information

Provision for strong U.S. collaborators

Collaborators Identified and Interested	X Uninterested or Uninterested or Uninterested or Uninterested or Uninterested or	No Collaborators Identified	Insufficient Information
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Engagement of former Soviet BW expertise and promotion of transparency

Excellent	Good	Little	Х	Insufficient
Transparency	Transparency	Transparency		Information

Х	Sustainable	Unsustainable	Insufficient
			Information

# GG-13, Isolation, Distribution, and Biodiversity of Selected Vibrios and Their Bacteriophages from Aquatic Environments in Georgia

Scientific importance of the topic

Highly	Х	Important	Minimal	Not Important	Insufficient
Important			Importance		Information

Quality and capacity of the PI, research team, and facilities

High Quality and	Х	Medium Quality	Low Quality and	Insufficient
Highly Capable		and Capable	Not Capable	Information

Provision for strong U.S. collaborators

Collaborators Identified and Interested	X	Collaborators Identified but not informed or uninterested or unqualified		No Collaborators Identified		Insufficient Information
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Engagement of former Soviet BW expertise and promotion of transparency

Excellent	Х	Good	Little	Insufficient	
Transparency		Transparency	Transparency	Information	

Х	Sustainable	Unsustainable	Insufficient
			Information

## KZ-16, Research on a New Highly Immunogenic Strain from *Francisella tularensis, subspecies mediaasiatica*, a Candidate for Human Vaccine

Scientific importance of the topic

Highly	Х	Important	Minimal	Not Important	Insufficient
Important			Importance		Information

Quality and capacity of the PI, research team, and facilities

High Quality and	Х	Medium Quality	Low Quality and	Insufficient
Highly Capable		and Capable	Not Capable	Information

Provision for strong U.S. collaborators

Collaborators Identified and Interested	X Uninterested or Uninterested or Uninterested or Uninterested or Uninterested or	No Collaborators Identified	Insufficient Information
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Engagement of former Soviet BW expertise and promotion of transparency

Excellent	Х	Good	Little	Insufficient
Transparency		Transparency	Transparency	Information

Х	Sustainable	Unsustainable	Insufficient
			Information

Attachment 2

## **Proposal Review Process**

The Defense Threat Reduction Agency (DTRA), under the Department of Defense (DoD) Cooperative Threat Reduction (CTR) Program, established the Collaborative Research (CR) project to facilitate cooperation on biological research between the United States and the former Soviet Union. The purpose of this project is to prevent the proliferation of former Soviet Union biological weapons scientific expertise and technology by expanding scientific cooperation and exchange in peaceful applications of the biological sciences between American research scientists and Russian research scientists who had participated in the biological weapons program of the former Soviet Union.

Since April 1999, the National Research Council (NRC) has assisted DTRA by providing a system of peer reviews for all former Soviet Union-proposed research projects being submitted to the CTR/CR project for funding. These reviews are conducted by the Committee on the Review of Research Proposals for Cooperation with Former Soviet Biological Weapons Personnel and Institutes. The committee's primary task is to evaluate proposals prepared by Russian researchers for scientific validity, based on established criteria. The committee also conducts site visits to former Soviet Union biological research institutes, helps to identify qualified potential U.S. collaborators, and reviews project technical reports.

The committee meets in person approximately twice each year to evaluate proposals, participate in site visits, and conduct other business. Committee meetings provide a forum for the members to clarify their understanding of individual proposals and agree on proposal ratings.

#### **Pre-meeting Activities**

Prior to each committee meeting, all members receive the proposals. They are expected to read each proposal and be prepared to discuss its merits at the meeting. Any committee member who might be perceived as having a conflict of interest on a specific proposal will be asked to recuse himself or herself from the review and discussion of that proposal. Each proposal is assigned two lead members to evaluate the proposal according to the criteria below and lead the discussion on the proposal. The lead members' areas of expertise are matched as closely as possible with the proposal's subject matter, as determined by the chair and the responsible staff officer.

In addition to review of the written proposals, two or more committee members have typically conducted a site visit to each research institute or laboratory being considered for funding. The purpose of the site visit is to determine whether the quality and capacity of the research team, equipment, and facilities are adequate to support any subsequently proposed research. The committee members attempt to visit each facility from which they receive proposals at regular intervals of three to four years, as requested by the sponsor. Because many of the institutes and laboratories are located in the same or nearby geographic areas, it is possible to visit several sites during one trip.

### **Evaluation Criteria**

Committee members use the following criteria to evaluate each proposal:

- Scientific importance of the topic;
- Quality and capacity of the principal investigator, research team, and facilities;
- Provision for strong U.S. collaborators;
- Engagement of former Soviet biological weapon expertise and promotion of transparency; and
- Sustainability of the research following project completion.

#### **Committee Meetings**

In the meeting, committee members share their individual assessments and discuss the results of previous site visits. Conflicting opinions are discussed until all members agree. The committee then rates the proposals in each of the categories listed above.

### **Transmittal to Sponsor and Public Release**

A letter report containing the committee's composite rating of each proposal is prepared after each meeting and reviewed according to the procedures of the National Research Council's Report Review Committee. Once approved, the report is transmitted to DTRA and posted on the National Academy Press website <u>http://www.nap.edu</u>. The full proposals are available through the NRC Public Access File.

### **Declaration of Technical Data Conformity**

The Contractor, the National Academies, hereby declares that, to the best of its knowledge and belief, the technical data delivered herewith under Contract No. DTRA01-02-D-003 are complete, accurate, and comply with all requirements of the contract.

Date: August 15, 2005

Authorized Official: Glenn Schweitzer, Director, Office for Central Europe and Eurasia

Attachment 3

### Committee on the Review of Research Proposals for Cooperation with Former Soviet Biological Weapons Personnel and Institutes

David Ashford, Centers for Disease Control and Prevention **Carol Blair**, Colorado State University Gail Cassell, Eli Lilly and Company David Franz, Midwest Research Institute Christopher Howson, March of Dimes Peter Jahrling, National Institute of Allergy and Infectious Diseases Paul Keim, Northern Arizona University James LeDuc, Centers for Disease Control and Prevention Thomas Monath, Acambis and Harvard University Rebecca Morton, Oklahoma State University Matthew Meselson, Harvard University Frederick Murphy, University of California, Davis Connie Schmaljohn, United States Army Medical Research Institute of Infectious Diseases Joseph Silva, University of California, Davis Richard Witter, Michigan State University Russ Zajtchuk, Chicago Hospitals International

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