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Meeting of the Delegations of the U.S. National Academy
of Sciences and the Academy of Sciences of the U.S.S.R
on Biological Weapons
Washington, May 9-11, 1988

Summary Report

The second meeting of delegations of the U.S. National Academy of Sciences (Committee on International Security and Arms Control subgroup on biological weapons) and the Academy of Sciences of the U.S.S.R. took place on May 9-11, 1988, in Washington, D.C.

The members of the US delegation were: Dr. Joshua Lederberg, chairman; Dr. Robert Chanock; Dr. Paul Marks; Dr. Alexander Rich; Dr. Alexis Shelokov; Dr. John Steinbruner; Dr. Samuel Thier; Dr. Frank Vandiver; Dr. Theodore Woodward; Dr. Victor Rabinowitch; and Ms. Lynn Rusten. Dr. Alexander Langmuir, Dr. Matthew Meselson and Dr. Glenn Schweitzer were present as observers (see attachment #1).

The members of the Soviet delegation were: Academician V. Ivanov, chairman; Dr. E. Sverdlov; Dr. A. Yablokov; Academician S. Prozorovskiy; Mr. N. Smidovich; Mr. O. Lisov, and Mr. Valery Nemchinov (see attachment #2).

The agenda contained the following items (see attachments #3 and #4):

1. Review of Current US and USSR Programs Related to BW
2. Confidence Building: Positive Measures and Impediments
3. Scientific Cooperation and Confidence Building Measures
 - a. Structural Frameworks for National Epidemiology
 - b. Information Sharing and Monitoring of Vaccination Programs
 - c. Cooperative Programs in Biomedical Research
4. Arms Control
 - a. Definition of Legitimate and Prohibited Activities

- b. Principles of Control
 - c. Compliance: Verification and Enforcement
 - d. Discouraging the proliferation and use of BW agents by third parties
5. Next steps

Review of Current US and USSR Programs Related to BW

Discussing the US program, Lederberg called attention to the existing open publications in the US including the October 1987 submission to the UN, the annual DOD Report to Congress on the BW defense research program, and open scientific publications on the research conducted at defense labs, particularly at the US Army Medical Research Institute of Infectious Diseases (USAMRIID). Some of these publications were made available to the Soviets during the meeting.

Vandiver made a presentation on the facility and activities at the Dugway Proving Ground, particularly in its Life Sciences Division. He provided information about the Division's mission, size, personnel and research. The Soviets expressed interest in and appreciation for Vandiver's presentation. Ivanov said he hoped that before long the Soviet government would be able to provide similar information and slides on its BW defense program.

Smidovich discussed the October 1987 and April 1988 USSR submissions to the UN. He explained how the Soviet Council of Ministers organized internally the collection of information across agencies. He stressed that the USSR had provided information that went beyond the letter of the reporting requirements, including the declaration of all BL-3 facilities, listing of authors and publications emanating from the military research labs, and provision of information about related scientific conferences. Smidovich said his government was disappointed by the low participation rate of BWC signatories in the data exchange. He said the USSR thought governments should declare related government activities taking place outside of

the national territory. He noted that the US had been late in submitting its April 1988 report, and expressed disappointment in the US October 1987 report for not reporting on activities at the margin, especially work done under contract, e.g. at universities.

Confidence Building: Positive Measures and Impediments

Both sides understood the need for greater confidence about each other's activities in the BW area, and agreed that greater openness and increased contact among scientists involved in related fields was the most practical method of promoting confidence. The open publications and data exchanges discussed earlier were recognized as significant contributions to the understanding of each others' activities.

The 1979 Sverdlovsk anthrax incident was cited by the Americans as an example of an event which was poorly handled. The Soviets refused to offer detailed information; the incident then became part of political attacks on the Soviet record of compliance with arms control agreements. The Americans expressed appreciation that more information about the incident was now forthcoming from the Soviets, but noted that the details had still not been formally published.

Lederberg raised the issue of the remark made by Valentin Falin which had been quoted in a New York Times column by Flora Lewis. Lederberg said Falin's threat that the Soviets could use BW as a response to SDI was an example of the ease with which fears could be created and with which treaty commitments could be broken. Smidovich asserted that Falin's remarks were misunderstood or taken out of context, and that the incident was merely a misunderstanding. Thier made reference to US displeasure with accusations in the Soviet press that AIDS was created by DOD as a biological agent. The Soviets immediately said that scientists knew this was not true. They also noted that the Soviet people were very afraid of AIDS.

Scientific Cooperation and Confidence Building Measures

Much of this discussion stemmed from the recognition that scientific cooperation and personal contacts could enhance knowledge about research being conducted by individuals and labs and thus do much to create confidence.

Thier, President of the Institute of Medicine, Rabinowitch, Director of the NAS Office of International Affairs, and Schweitzer, Director of the NAS Committee on the USSR and Eastern Europe, summarized the current state of cooperative programs with the Soviet Academy of Sciences and the Soviet Academy of Medical Sciences. Much of the ensuing discussion focused on the value of conducting seminars, workshops and joint research in related fields. Enthusiasm was also expressed on both sides for the idea of placing American and Soviet post-docs in each other's institutes for periods of a year or more. Some of these suggestions will be implemented through the existing inter-Academy mechanisms.

Chanock gave a detailed presentation on the open process by which vaccines for civilian and military use are developed, evaluated, licensed and monitored in the US. He indicated where and how this information could be obtained by the public, and emphasized that even vaccines developed by the military had to be licensed by the civilian Food and Drug Administration.

The Soviets expressed much interest in Chanock's presentation. Prozorovskiy said there was not an equally open system of vaccine development in the USSR. But he did say that all vaccines developed by the Soviet military had to go through the civil system of approval before they could be used. He suggested there should be a mutual obligation to announce the creation of vaccines against dangerous and toxic diseases, perhaps even giving the other side the right to examine samples under appropriate safeguards. He also recommended joint research on such vaccines to enhance confidence and reduce the possibilities for unilateral advantage.

Langmuir made a detailed presentation on the system of epidemiological surveillance in the US. He stressed the importance of first-rate surveillance and the capability to

disseminate the information broadly from a centralized source. The Soviets expressed much interest in, and respect for, Langmuir's presentation and work in this field. Prozorovskiy said the Soviet epidemiological system currently was not centralized, and furthermore statistics in the past had been suppressed and distorted. He said that due to restructuring, and with the help of computers, they were starting to improve their collection of epidemiological data. The Americans stressed the importance of having good data and disseminating it in a timely fashion to aid science and confidence building.

This discussion led to the suggestion that there be an exchange of post-docs who could spend one year at the CDC and the Soviet equivalent to learn and share information about the science of epidemiology and its conduct in each country. The discussion of vaccines led to a similar suggestion to put post-docs in large vaccine production facilities, perhaps even the ones producing vaccines for the military.

Arms Control

Discussion of this item was more procedural than substantive. Smidovich from the Ministry of Foreign Affairs and Lisov from the Ministry of Defense were apparently instructed or at least authorized to propose that a bilateral scientific forum be established to consider how to devise meaningful measures to enhance the verification of compliance with the BWC. The Soviets appear to be trying to come up with some ideas in advance of the third BWC Review Conference, scheduled to occur before 1991. Smidovich and Lisov were very open as to what the structure of such a scientific forum might be.

The Americans responded with interest to this suggestion, with the proviso that the interaction continue to operate as an unofficial dialogue among scientists conducted under the auspices of the two Academies of Science. The Americans noted the asymmetries between the two Academies and emphasized the tradition of the NAS and the parent Committee on International Security and Arms Control to both maintain its independence from

the government and avoid interfering in the affairs of government. Therefore, this dialogue would have to be understood as scientific, informal, and unofficial.

Both sides agreed that such an effort would demand a greater commitment of time, energy and expertise than had been contributed so far; both sides indicated a willingness to make such an effort.

Lederberg flagged some of the fundamental issues deserving deeper thought: How could one define and verify the permitted level of BW research and development work? What would be needed to verify compliance and how would it be done through an on-site inspection? What activities at a research laboratory would be cause for alarm? The Soviets listed similar issues for examination. It was agreed that the chairmen and staff would communicate in the near future to hammer out a detailed agenda, work plan, and mechanism for regular and more frequent meetings.

USAMRIID Visit

On the second day of the three day meeting, both delegations attended a scientific seminar in which three individuals from USAMRIID presented research on hemorrhagic fevers and vaccine development.

Following the seminar, the delegations took a brief tour of a part of USAMRIID, where they saw a high containment lab and an isolation unit. This unprecedented visit provided an opportunity to ask questions about the USAMRIID program and facility.

The following day, the two committees had a frank discussion about the tour. It was acknowledged that the tour had been rather brief, and that it had been difficult to arrange. The Soviets were nevertheless appreciative that it took place. Ivanov said he recognized its implication for a reciprocal Soviet site visit, which he indicated he would try to arrange. The Soviets asked why the security had been so heavy, and this issue was discussed. The Americans made the point that the lab

did harbor dangerous infectious agents and so one could not roam freely without risking accidental exposure. The Soviets understood the significance of the fact that the visit took place at all and that it had set an important precedent, despite its limitations. Furthermore, the visit stimulated a discussion of what one could hope to learn from an on-site inspection, no matter how extensive. This question is to be examined in future discussions. It also resulted in the suggestion that it might be good to work toward, in the future, the possibility of putting a Soviet post-doc at USAMRIID and an American post-doc at a comparable Soviet military facility. This was recognized to be a long-range goal.

Next Steps and General Observations

The atmosphere of the meeting was good. The Soviets, due largely to the participation of Smidovich and Lisov, were much more focused on the arms control issues than they had been at the October 1986 meeting. The scientists on the Soviet delegation appeared to be just beginning their exposure to these issues.

The next steps will be to implement the recommendations for scientific exchange and cooperation through the existing inter-Academy mechanisms, and to work out a modus operandi for deeper consideration of verification and confidence building measures regarding each side's activities in BW defense.

Lynn Rusten

Attachment #1

Meeting of the Delegations of the U.S. National Academy
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US Participants

Dr. Joshua Lederberg, chairman
President
Rockefeller University

Dr. Robert Chanock
Laboratory of Infectious Diseases
National Institute of Allergy and
Infectious Diseases
National Institutes of Health

Dr. Paul Marks
President
Memorial Sloan-Kettering
Cancer Center

Dr. Alexander Rich
Professor of Biophysics
Department of Biology
Massachusetts Institute of Technology

Dr. Alexis Shelokov
Director of Vaccine Research
Government Services Division
The Salk Institute

Dr. John D. Steinbruner
Director
Foreign Policy Studies Program
Brookings Institution

Dr. Samuel Thier
President
Institute of Medicine

Dr. Frank E. Vandiver
President
Texas A&M University

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Dr. Theodore Woodward
Professor of Medicine Emeritus
University of Maryland Hospital

Dr. Victor Rabinowitch
Director
Office of International Affairs
National Academy of Sciences

Lynn Rusten
Director
Committee on International Security
and Arms Control
National Academy of Sciences

Observers

Dr. Alexander D. Langmuir
Former Chief Epidemiologist
Centers for Disease Control
US Public Health Service

Dr. Matthew Meselson
Department of Biochemistry and Molecular Biology
Harvard University

Dr. Glenn Schweitzer
Director
Committee on the USSR and Eastern Europe
National Academy of Sciences

Attachment #2

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USSR Participants

Academician V. Ivanov
Deputy Director
Institute of Bioorganic Chemistry

Dr. E. Sverdlov
Corresponding Member of AS USSR
Institute of Bioorganic Chemistry

Dr. A. Yablokov
Corresponding Member of AS USSR
Koltsov Institute of Developmental Biology

Academician S. Prozorovskiy
Director
Gamaleya Institute of Epidemiology
and Virology

Mr. N. Smidovich
Ministry of Foreign Affairs

Mr. O. Lisov
Military Expert
Ministry of Defense

Mr. Valery Nemchinov
Delegation Secretary
AS USSR

Attachment #3

Meeting of the Delegations of the U.S. National Academy
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Draft Agenda

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Highlights:

1. Their scientists disavowed Falin's threats and the stories of AIDS being invented in USA.
2. They are eager for much more bilateral scientific exchange, including at BW Defense Research facilities. As here, that will take further dealings with their defense authorities. They welcome US post-docs at the Institutes in Moscow.
3. They took the initiative that scientific groups continue the dialogue on problems of verification and definition at the R&D level, and what proposals to make on OSI.
4. They welcomed the opportunity to visit USAMRIID and saw that as a precedent for reciprocity on their part.
5. They welcome other cooperative activities, including workshops on vaccines, arborviral diseases, epidemic surveillance.
6. A group of their biological scientists is gradually developing familiarity with BW arms control issues and, hopefully, the USSR's own programs as disclosed in the submissions to U.N.

The most important point: what do we really want to see (and are willing to show reciprocally) that we can verify on site? They appear now very willing but we haven't made up our own mind as the standards.

J.