

NATIONAL ACADEMY OF SCIENCES
COMMITTEE ON INTERNATIONAL SECURITY AND ARMS CONTROL
2101 Constitution Avenue Washington, D.C. 20418

January 6, 1995

TO: Members of the BW Working Group
FROM: Jo Husbands and Lois Peterson



SUBJECT: Summary of Decisions and Assignments from October 14th
Meeting -- Updated

NOTE: This memo reflects both the decisions we made at our meeting and information received afterwards, including some comments from Josh. The latter are shown as [NOTE: (with the appropriate date)] in the text. The main text dates from October 15th.

A. BW Conversion Assistance/ISTC

1. The immediate priority is to try to get the two already approved projects for NPO Vector through the final stages of the approval process, that is, to help Sandakhchiev find the U.S. and European partners he needs.

- a. Bob Chanock is going to explore whether his lab could be the American partner for the measles vaccine work.
- b. We have identified several American and European researchers who could be partners for the Hepatitis A vaccine work, and the staff will work with Glenn Schweitzer's staff to contact them. We may call on members of the BW Group to help us.

[NOTE #1, 10/28: We have since learned that Colonel William Bancroft from Fort Dietrick has agreed to be the American partner for both the measles and Hepatitis A work, so that hurdle is cleared.]

- c. Josh will contact Sandakhchiev to find out if he has had any direct contact with potential European partners, or any ideas for potential ones. Depending on the answer, we will try to help identify or finish arrangements.

[NOTE #2, 1/6: As shown in the summary from the Novosibirsk meeting, these have also been taken care of, so as far as we know funds are now moving to Vector.]

2. We will also try to help get additional proposals for NPO Vector through the ISTC pipeline. Two of the research proposals that Sandakhchiev sent to Josh (#1 and #2, dealing with hantavirus and bunyavirus/lentivirus) are of particular interest. Josh will contact Sandakhchiev

- a. To urge him to use the ISTC process as the most promising funding source at the moment, and
- b. To find out if he has been in touch with any of the prospective U.S. partners he names. If not, we will urge him to do so and offer to help facilitate that.

[NOTE #3, 1/6: See Josh's letter to Sandakhchiev, enclosed with this mailing.]

3. Josh and John Steinbruner will meet with Jim Timbie at the State Department on Wednesday, October 19th, to discuss the ISTC channel, and to encourage further funding for BW conversion.

[NOTE #4, 10/28: Timbie made clear that Josh's letter and our activities last spring made a real impact. The ISTC has been targeted as the channel for BW conversion assistance. The ISTC has been give a list of facilities of particular concern (essentially those of Biopreparat) and these are to receive priority. They also hope that the Domenici Funds that go for contacts between the national laboratories may also provide some BW funds. Timbie estimated that there will be perhaps \$4 million/year available for conversion projects, but more might be possible since this is considered a priority.

I spoke with Timbie after he had attended a meeting at the White House to talk about BW issues. Two additional projects that Josh and John had suggested -- paleo-virology and work on ebola and marburg -- were warmly received in the meeting and we are encouraged to urge Sandakhchiev to get proposals into the ISTC channel, where they will be watching for them.]

4. The BW Group is willing to be helpful as a facilitator to encourage funding for BW conversion. This would include providing some financial support to U.S. partners in order to meet their minimal obligations (one trip to Russia each year) under the ISTC grants. At present, we will concentrate on NPO Vector, where we know Sandakhchiev and his programs, but this could expand if we have the opportunity for contacts with other Biopreparat facilities.

5. To encourage further funding, either through the ISTC channel or as a supplement through the Gore-Chernomyrdin process

- a. Josh will contact Mary Pendergast at the FDA, who has Shalala's confidence, to try to spark Shalala's interest in the issue since she chairs the health subcommittee of Gore-Chernomyrdin.
- b. John Steinbruner will talk with Leon Furth in Gore's office and Jane Wales in OSTP about further assistance.
- c. Josh will alert Sandakhchiev about the upcoming Gore-Chernomyrdin meeting in early December as a way to increase support for BW conversion assistance.

B. VEREX

1. Since military-to-military contacts are seen as key to further progress on resolving concerns about past and current activities, John Steinbruner will talk with Andrey Kokoshin in Moscow about whether Kokoshin might be able to help arrange such a dialogue. The BW Group might be the initial facilitator and then withdraw from the process.

[NOTE #5, 10/28: John did not go to Moscow in late October as he had planned, but he will try to find another way to raise this issue with Kokoshin.]

[NOTE #6, 1/6: Matt is hoping to arrange a very small initial meeting under his own auspices this spring. If successful, there might be a role for our group in the future if we wanted one.]

2. The Group regards Vorobyov as a very important potential contact, and wants to keep in touch with him.

C. Royal Society

1. Josh will write a note to Ann MacLaren, the Royal Society Foreign Secretary, to explore what the plans of the Royal Society group are and whether a further meeting would be desirable.

2. If the BW Group becomes seriously involved in facilitating ISTC grants, the Royal Society group could be of assistance in identifying European partners.

D. Smallpox Eradication

1. Josh will contact Yuriy Ghendon at the WHO on behalf of the BW Group to raise the importance of promoting national legal arrangements for verification or enforcement to follow up on the proposed destruction of the remaining stocks of the virus. This could be a recommendation of the WHO Council as part of its general recommendation to destroy the stocks.

[NOTE #7, 1/6 from Josh: This has to be thought through very carefully. It is just possible that smallpox will return, and we don't want to hamper research in that event! So "legal arrangements" have to do with each government's cognizance of smallpox stocks on its territory, and taking responsibility for its disposition; and pledge to report promptly to international organs any discovery of smallpox or resumption of research. There are untold complexities how to write this into law, and again how to unwind it if smallpox does come back -- important among the reasons I much prefer an international control regime to

declaratory destruction. The battle continues at this very moment.]

E. BW Proliferation

1. An important area in which the BW Group could make a contribution would be technical analysis of the problem of detecting use of BW, as opposed to detection of clandestine programs, which is currently receiving the primary emphasis.

2. The technical and political issues of laying the groundwork for a strong response by the international community to any use of BW need substantial further work. The staff will monitor the preparations for the proposed Security Council summit in January, at which proliferation is to be a key issue, to see how the issue is handled.

3. To follow up on the Group's interest in encouraging the medical-scientific profession to take a firm stand against the use of BW, Jo will check on the success of the recent population conference of the world's academies to see if this might provide a vehicle to such an effort.

[NOTE #8, 1/6 from Josh: I see BW use by proliferators/terrorists as by far the greatest threats, and civil defense precautions as the most urgent priority. At some point NAS might be commissioned by the USG to advise on the substance of this, but we're not there yet. There is a serious interagency review going on finally.]

30 December 94

To: Lev S. Sandakhchiev
Subject: Support for Vector Research Collaborations
From: Joshua Lederberg

Dear Lev Sandakhchiev

I apologize again that this process takes so long. Besides exigencies of my own travel schedule, a lot needs to be done to educate high policy levels about needs and opportunities in global science and public health.

Evidently you have been in contact with ISTC; and I am told this would be the chief instrument for US Government co-participation in the activities of your institute. We are given strong reasons to believe that the interventions of our NAS-CISAC group played an important role in the decisions to include "BW-conversion" in the ISTC mission. The ideas that came from the discussions we held with you and our other Russian colleagues in the U.S. and in Moscow have then had some positive results.

I have seen a copy of the draft report of the seminar that the ISTC held at VECTOR in December. I am pleased that you have been successful in getting grants for your work on vaccines for Hepatitis A and for measles.

The CISAC BW Group saw the draft proposals and thought they were very good. Please let me know if we can be of assistance with the proposals on Hepatitis B vaccine and for clinical trials. Have you submitted the proposals on hantavirus and on bunyavirus/lentivirus that you sent me? The Group thought those looked very promising and we would be willing to try to help identify American and European partners if you have not already done so.

I also want to report on conversations we had this fall with senior policy staff about other projects that might be of interest to the ISTC. Based on our discussions in Moscow last spring, we suggested possible projects on "paleo-virology" (further development of your work on smallpox and other diseases among the remains exhumed from the permafrost) and research on Ebola and Marburg. We have received positive responses and I want to encourage you to consider proposals in those areas. I would be glad to offer comments on drafts, particularly on any involving paleo-virology. This is an area I find personally very interesting. The same concepts could be applicable to recovering traces of the 1919 influenza, and imaginably even the 14th Century Plague.

I am sure you have seen the report of recovery of DNA fragments of Mycobacterium tuberculosis from a 1000-year old mummy.*

I hope these comments and suggestions are of some assistance. The BW Group is trying to raise funds for our activities, and we hope to be able to propose ideas for another meeting soon. Please call on Dr. Husbands or myself if there is any assistance we can give you in presenting your proposals to the ISTC.

With all good wishes for the new year and our continued collaboration,

Sincerely,

Joshua Lederberg
Chair

P.S. Can you clarify for me your own personal position, and the formal input from Russia to the WHO advisory group on destruction of smallpox strains. Together with an increasing number of scientists, I continue to argue for postponement of destroying what may become an important natural-historical and scientific resource.

*AU - Salo WL

AU - Aufderheide AC

AU - Buikstra J

AU - Holcomb TA

TI - Identification of Mycobacterium tuberculosis DNA in a pre-Columbian Peruvian mummy.

AD - WL Salo, Univ Minnesota, Sch Med, Duluth, MN 55812 USA.

AB - The existence of tuberculosis in the pre-Columbian Americas is controversial because the morphology of the lesion is not specific, the organism is culturally nonviable in ancient tissues, and nonpathogenic soil mycobacteria can contaminate buried bodies. We report the recovery of DNA unique to Mycobacterium tuberculosis from a lung lesion of a spontaneously mummified, 1000- year-old adult female body in southern Peru. This provides the most specific evidence possible for the pre- Columbian presence of human tuberculosis in the New World.

SO - Proc Natl Acad Sci USA 1994 MAR 15;91(6):2091-2094