8/21/02
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Recording at the home of Martin Kaplan in Collonge-Bellerive, Switzerland
Saturday, October 24, 1998, approx. 6pm
Dr. Joshua Lederberg doing the interviewing, and I just want to ask Martin a few questions about the origin of his campaign over many years for the international control and prohibition of biological weapons.

JL: Martin, you have been such an instrumental figure in the whole development of the international effort, the founding of its conscience, the work through Pugwash, the work of the World Health Organization, so I'm just very curious to try to find out from you what were the origins of your concern about BW? When did you first hear about biological weapons and when did you first determine that you were going to lend your own efforts in that particular sphere?

MK: Well, it actually started during the Korean War, in the early 1950s when the report came to WHO, of which I was a staff member, in the Division of Communicable Diseases, and the accusation was made that the allied troops had introduced biological warfare into Korea in the form of _____which was the main thing used at that time. In any event, in WHO, our division was alerted about this matter. At that time, I'm pretty sure, that Brock Chisholm was the Director General and he had been the head of the Canadian forces dealing with biological warfare in the second World War and the head of the division, the Assistant Director General was Sir _____, and we were alerted to the possibility if the U.N., requested WHO, to send a team in to investigate these allegations. Some of us in the Division of Communicable Diseases, would be asked to serve.

So, this held for the time being. We discussed this amongst ourselves. We didn't have the slightest idea of how we would mount a team to do this very rapidly. But, in any event, the UN request directly to WHO never came through; and apparently, by constitution, and the arrangements of the WHO connected with the UN, unless such a request did originate there, WHO, on its own, could not take the initiative and therefore, that particular effort died out. But that answers the question. I think when did I first become aware of biological warfare as such and it was that incident that started me thinking about it.

JL: This was 1951 do you think?

MK: Well, it may have been '51 or '52. I think it was very early when the accusations were made widely throughout the world by groups. Some were left wing groups. Others were supporters of the Koreans. The Chinese, for example, made a big public fuss about it. But I'm trying to recall how early it was. It was either '51 or '52. I would have to look up exactly when it was.

JL: OK.

JL: Were you aware at the time that both the Soviet Union and the United States and perhaps some other countries did have extensive laboratory programs for the development of biological weapons?

MK: Yes, I was aware of the work that was done on the island in Canada -- Gross Isle -- I think it was called; in biological warfare as regards domestic animals. I recall particularly, that we knew that work was being done on ~~render pests~~, for example, which was not being worked on in the United States and on the continent . But we were aware, certainly in the veterinary field that veterinary investigations were going on in the collection of exotic diseases that might be used. So it was not an entirely new experience about biological warfare as such. The Korean War was merely a triggering of something I had heard about before but did not pay much attention

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to.

JL: The allegations around the Korean War had to do with the use of biological weapons which was forbidden under the terms of the 1925 Geneva Protocol . The development of weapons, the possession and stockpiling was in fact, not illegal under the existing international law at that time. At what point did you begin to be concerned that there ought to be international regulation of the development and possession of these weapons to go beyond the Geneva Protocol?

MK: My first and primary concern was the question of nuclear weapons and I must say, I paid much more attention to the danger and the consequences of the use of nuclear weapons, not only from Hiroshima and Nagasaki, but from the fact that there were stockpiles of such weapons. And as the cold war developed in the early 1950s, in the middle 50's, I became increasingly concerned and I felt that the potential of a nuclear war would be so devastating that somehow the scientific community, as such, should work together to do what it can to prevent such an occurrence. I became interested in mobilizing the scientific community to try to do this but as a lone person I did not know how to go about this. ~~and~~ It just happened that in WHO, a science journalist Richie Calder, by name, came to WHO. WHO employed him as an advisor in popularizing medical affairs and I talked with Richie Calder about my own apprehensions about how we could get the scientific community together to try to oppose these developments.

JL: You're speaking now of nuclear weapons?

MK: Nuclear weapons. And he told me that such an organization existed -- called Pugwash. I hadn't had the slightest idea what that was. But he was aware of a meeting that had been recently held of scientists to address the problem of nuclear weapons. Well this was his field. He was a journalist and he was alert to such developments. He suggested that I get in touch with them. And the leading figure, then, was Joseph Ro~~blatt~~ in England, and that he would probably help me about this problem.

So, I did get in touch with Rotblat.

JL: Do you have the date on that?

MK: No, well I would have to look that up. Well, my trip to England -- I think it was December of 1957 -- that I met with him in his office in London. He was at Bart's Medical School at that time. He was a radiobiologist there ~~doing work~~ and I talked with him and he inquired of my background. And I told him infectious diseases, microbiology and so forth. And he asked me if I would be interested in attending a meeting that they were having. I said that I certainly would. And then I received an invitation to attend the meeting in 1958 in _____, in Vienna, which I did attend during the summer of 1958. And that was a very large meeting, very distinguished scientists from there was written up in biographies at Pugwash. But when I attended the meeting, known as a microbiologist, apparently, they had been discussing amongst the continuing committee of Pugwash, the problem of biological weapons. Now how they became interested in that I don't recall at present, except in the Pugwash Manifesto, they mentioned not only nuclear weapons but weapons of mass destruction and that would seem to me to have fulfilled the niche in their thinking of other weapons besides nuclear that had to be tackled. But I would have to go back a bit to see why and how they did become interested and involved and who were the inspiring elements.

Now, I think I have it. Brock Chisholm. He was at the first three

meetings of Pugwash and he was the Lt. General of the Canadian Armed Forces in charge of the problem of biological weapons. He was the Director General of WHO as well and he knew me from my work in infectious diseases and it was he, I am now pretty sure, was the one that introduced this problem to the Pugwash Continuing Committee to pay attention to it and included in their _____ apart from nuclear weapons. So I think that I pinpointed at least the origin of where this all started in the Pugwash conferences itself. I just came into it in the prepared grounds of this, or at least have been alerted to it and I was a microbiologist working at the WHO in infectious diseases so the thing.....

JL: What was Chisholm's own professional background. I have seen his writings on nutrition. Do you know what he was professionally?

MK: Yes, he was a psychiatrist.

JL: Oh, really. That's right. Of course.

MK: And he was a remarkably effective executive. WHO really owes a great deal to Chisholm and to his ability.

JL: I'd be curious to know if there are any other writings on his part on the problems of biological warfare at this time -- expressed in his own voice the concerns which he implemented in some measure by delegating responsibility to you, Martin.

MK: Well, I don't know if he had writings. He certainly ... and I have listened to a lot of speeches by Chisholm, I don't remember him explicitly mentioning biological weapons but I have no doubt that it was his intervention and the Pugwash conferences as such that having been a primary attender of the meetings -- at least to the first three as leader -- to the danger of this because he had to deal with it during the war.

JL: We were just talking about the third conference in _____ in September 1958 . I'm looking at the history of the conferences. What happened after that -- at Pugwash?

MK: In _____ I was asked by Roblatt and I forget others, Bernie Feld, I believe was involved in this problem. They came to me and told me they had discussed in the continuing committee a meeting as soon as possible on the problem of chemical and biological weapons and would I undertake to organize such a meeting? This was in 1958 and would I be able to do it next year? In 1959. Of course, I said it was quite short notice but there was an intervening meeting -- a Pugwash meeting which I think took place in Moscow -- the fourth meeting of Pugwash and this would be the fifth meeting.

JL: The fourth meeting was in Baden.

MK: Oh, I see it was Baden. Well, I did not attend the fourth meeting but it was decided that this would be the fifth conference of Pugwash. I undertook to organize this from scratch, so to speak.

JL: This one was held in Canada -- Nova Scotia -- at Pugwash Nova Scotia. Wasn't it?

MK: Yes. I think it was late August, early September of 1959.

JL: I note the summary of the conference was very much concentrated on CBW problems. Do you want to recapitulate what your main recommendations were?

MK: Well, I have to try to think what we stressed. I can only say

that it was a first class group of scientists. It was all in the record of who attended there. The appraisal of biological and chemical weapons, I think generally, by the group was a danger, a modest one though. We tried to compare it to a sense of what we knew about the nuclear weapons, it was quite clear to the group that while the extremely convalent use of a weapon, it did not compare with the nuclear weapon in its destructive ability. I think it emerged from the report, I don't know if we explicitly made that comparison but in the publicity that was given at the press conference when the issue arose, I recall distinctly how very angry Cyrus Eaton was and the fact that we didn't raise any horrendous picture of the menace of chemical and biological weapons. We certainly did not rate its potential in any way that measures should be taken to combat it. But from our knowledge, that when dealt with this problem, it had much less potential ..... .

JL: Well if you're talking about states annihilating one another which is within the capacity of one another for nuclear weapons to accomplish, I think latter day judgement would agree with what you have indicated at that time.

MK: I think we would have to look at the report itself. I don't have it handy, but I am recalling that at general discussions that we had and the views that were represented there by very good microbiologists. We also had the nuclear people there and several of the other nuclear authorities. They were very interested in a field that they knew very little about and how to compare with a nuclear weapon and I think they obtained some satisfaction to know that the nuclear weapon was much more destructive than .....

JL: I noticed that Theodor Rosebury was at the fifth conference. Can you recall his position on these matters?

MK: I only thing I remember about Rosebury and his contributions, I would like to look again into not the minutes of the meeting but the complete report because I think he stressed the research work that had gone on during World War II and the potential of biological weapons to be a very dangerous type of weapon. There was no background history on its use except in very exceptional circumstances, if not as a military weapon itself. So he was more concerned with what the potential was in the development of this field of activity than its actual level at the time. I think he worked at Fort Detrick.

JL: I'm sure he did.

MK. He was in the forces that worked on this problem in a professonal way.

JL: Well, I remember the book he had written shortly after the war. Peace or Pestilence or some title like that made a vivid impression on me in the postwar era.

JL: Ok, let's go on to Matt Meselson. I think he is a cousin of yours. Isn't he?

MK: Yes, a second cousin. His mother is my first cousin.

JL: Matt has played a very important role in these developments. I suspect you recruited him. Do you want to say how he came into Pugwash?

MK: I think the first meeting that Matt participated in was in 1962. After all, we had Aberdeen in 1959, 1960 and 1961 and the results of these began to percolate in the sense that Pugwash felt that much

more effort should be put into the assessment of this problem of CBW and I think it may have been in 1962 that we first came to grips with it. I'm trying to recall the meeting that we really decided to spend full time on biological warfare and then later brought in the chemical dimension. I knew that we discussed -- it was in Dubrovnik -- at a meeting , there was _____, there was Matt, and we were discussing this potential. I don't know if Matt had put any thought -- there must have been a reason why we invited him that he had some interest and knowledge of the subject and was invited. Certainly he wasn't invited for the nuclear dimension of that meeting. I have to look up the agenda. And that was the start, I believe, of his participation which has continued throughout all these years. I remember there was a very important one in Venice of which we did have epidemiologists, microbiologists. There was _____, _____ was head of the division of communicable diseases at WHO. There was a Czech and others at this meeting where I think we really started to go in depth and explore the developments in this field and to make it a continuous concern of Pugwash because as history will show that we had a steady flow of meetings of first, biological and then bringing the chemical component from '62 up to the present. I think there is something like 35 or 40 meetings devoted to this subject so you can see from the development of meetings from Pugwash in this area how seriously they took the development.

JL: I didn't know how close you were to Matt personally. I thought that your relationship with him had something to do with Pugwash. But another option is Alex Rich. Alex had played a very active role all the way through this. They certainly knew each other intimately at Cambridge and if Alex were looking for a microbiologist to assist in the development of the thinking on the topic , it is quite plausibly you might have hit upon that. Is that....

MK: Yes, it does strike me. Alex did attend meetings and he was at Cambridge of course. And there was Matt -- Matt being a famous geneticist.

JL: Well, I may ask him directly and see if he has any thoughts.

MK: That, would be great. I would like to hear myself. But when you mention Alex Rich, I recall that he was very much involved in the early meetings of Pugwash and I think he attended our first meeting at Pugwash. Although he didn't say much, I recall that he was quiet about anything , any contributions to the discussions. The people that we had there were all microbiologists. I don't think Alex was. In that sense he was the basic research scientist and a very good one. But at that particular meeting I don't remember him playing any role whereas I remember others that played very significantly common roles in that.

JL: Well we can cross check some of those speculations. As you go on into the 60's , there were two other derivative important developments. In 1966, Matt started circulating a petition, I think having more to do with chemical warfare in Vietnam than in some broader issues but asking that the U.S. ratify the Geneva Protocol and abstain from the use of chemical and, by my indications, biological weapons. Then in 1966, early 1967, SIPRI was organized and began to take an active role, particularly in furthering studies in biological and chemical arena. Do you have any recollections about either of those two?

MK: At the first one, I think Matt was particularly interested in the use of chemicals in the Vietnam war. At that time it didn't seemed to be used on a massive scale -- that is later -- the defoliant -- Agent Orange. That was his particular interest and

concern as a war weapon and he followed that for many years. The other aspect of this was he wanted a petition about the use in the Vietnam War of such weapons. What was the second point that you mentioned?

JL: About SIPRI.

MK: SIPRI. Oh yes. We had a great deal with Pugwash in the founding of SIPRI. ~~Hanna Zelfain~~ was the president of Pugwash, I think, at that time. He was a Nobel physicist. And he was very interested in establishing in Sweden by the government a research institute that would be devoted to war weapons -- nuclear, chemical and biological. He came to Pugwash for ideas on it and certainly gave me ideas on it and helped to formulate the idea of SIPRI which was indeed founded. Now when SIPRI got started , I don't remember the date it got underway, the head of that was Robert Neal. They immediately began to take up the problem of chemical _____until shortly thereafter through Milton Litenberg and Julian Perry Robinson who devoted their full time to exploring this field, developing historically and publishing as the years went by, I think five or six volumes on chemical and biological weapons. So SIPRI became very much and still remains very much .... .

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JL: Those volumes are absolutely indispensible.

MK: Absolutely.

JL: Today, they are out of print.

MK: Well they are on my table and I look to them for history . They have a remarkable historical record of especially the Korean War. I think they have defined very well the developments in the war and the repercussions .

JL: Do you want to jump quickly to the further events -- the WHO study on the health effects -- the UN study -- and how those were seque into the disarmament conference?

MK: Yes, in WHO when the UN undertook to develop a study according to the Director General, who was U Thant at that time, and it is all described in the UN publication which came out in 1969. Zolly Zuckerman, who had been appointed the rapporteur for the UN group, got in touch with me at WHO and he knew the interest both in Pugwash and WHO on this problem and was very familiar with the set up and asked WHO in effect to undertake the development of a booklet on the technical aspects of chemical and biological weapons and whereas he as a rapporteur and director and the real motor in the UN effort would pay more attention partly to the technical aspects and its properties but a great deal to the political repercussions to what can be done. At WHO we undertook the study with the code support of Markelino Candau who was Director General of WHO at the time. And that product was published in 1970 . There were twenty some odd contributors of which four of them are now working on a second edition, that is Josh Lederberg, Matt Meselson, Julian Robinson and myself. And that book which finally came out proved to be a landmark in its field to international health organizations and national health organizations because it was so well done, if I might say so, that it became a source of education to health organizations on this problem of the chemical and biological weapons. So the two books, the one published by WHO and the one published by the UN, I feel, did exert a very positive effect in achieving the 1972 Biological Weapons Convention which is still in force. Of course, one of the great things as impetus to that was Nixon's renunciation of biological weapons as such unilaterally and their destruction and I think that the whole story of that has still not been told because Matt had a great deal to do on that

through Henry Kissinger who was the advisor, as you recall, to President Nixon. I think Matt should tell that story of his dealings with Henry.

JL: I've urged him to do that many times but without much success.

MK: Is that so? Well it was certainly true and he should get the credit. It would be very interesting to see how he did that although I know that he did that with Kissinger . He had been working down, and I think it was Washington, on this field and he had immersed himself into the technology, not only the technology but the scientific aspects of it so he was very well informed.

JL: Ivan Bennett also had a great deal to do with it.

MK: Yes, you're right. Ivan Bennett was another one.

JL: Which I think he has not gotten credit for.

MK: I know we invited Ivan Bennett . Whether he ever....

JL: I saw his name in one of the meetings. Yes, here he is.

MK: I have a great respect for Ivan.

JL: Yes, he was in the study group on biological warfare.

MK: That's fine.

JL: Just to bring us up to date with one another. In 1970, shortly after or about the time of publication of the WHO volume, I was asked by the Arms Control Agency if I would consult with the commission to the committee on disarmament in Geneva and I think one of the reasons they selected me for that was that I was more sympathetic than others to the idea of separating the conclusion of the BW agreement and not the CW. I felt the CW part of it was going to get all wound up on the questions of defoliants, tear gas and I guess, I felt that those were marginal issues but I put much greater urgency on BW as a separate problem . That was not the same view that was held by Matt. It was not the same view that was held generally at Pugwash. It was one that was _____ by the British delegation and in the end prevailed. You can argue about it today. But at least it did get us a treaty by 1972 which I do not think would have happened. It took us until just a couple of years ago to get a CW treaty and my own view is that biological weapons are a far, far greater threat. People can argue about that. I don't know what your current perspectives on that might be, Martin?

MK: I'm trying to think of the situation at that time first and then I'll give my thoughts on what you just said.

MK: We started out with biological weapons and we had a series -- about four or five meetings -- on that alone and then brought in the chemical weapons you mentioned. I must confess that my own views about the matter corresponded with yours. I thought the biological weapons were a much more potential danger than chemical weapons from my own knowledge about them. I was very excited about getting this biological weapons convention, although as you see in our book in WHO, we did deal with both. I think that was done very well and I think that in succeeding years we were very much involved in Pugwash and in WHO with the development of the Chemical Weapons Convention -- a long, drawn out series of meetings, finally culminating in 1960 in the Chemical Weapons Convention. Right now I think the proper focus is on getting a strengthened Biological Weapons Convention.

JL: Well, the CW is ahead. It has verification provisions that go beyond on what we have on the BW side. So kind of leap frogging, one over another, aren't we?

MK: Well, we have to think much more on what verification measures could be effective and practical in time.

JL: I think that is all we have time for now.