THE UNIVERSITY OF SUSSEX
SCIENCE POLICY RESEARCH UNIT
MANTELL BUILDING FALMER BRIGHTON SUSSEX BN1 9RF U.K.

Telephone:
BRIGHTON (0273) 686758

Dr M S Meselson
Dept of Biochemistry & Molecular Biology
Harvard University
7 Divinity Avenue
CAMBRIDGE
Mass 02138

20 Sept 81

Dear Matt,

Here is a bunch of things, including some items on mycotoxins. One, as promised, is a copy of that Bamburg et al (1969) review article I showed you when you stopped over in London last Spring. Then there is a copple of other mycotoxin papers I happened to have in my files and a reading list I've just done of more recent items to update the files. The only one of its entries I've yet managed to retrieve is the Austwick review, copy enclosed.

I had a call, on 17th September, from Sohrab Kheradi in New York. As you may recall he is the UN staffer for the CW Expert Group investigation. He said he would be in Europe for a couple of weeks, starting yesterday, and would I be free for a chat--'nothing specific', he said. Have you any idea where the UN group is at now, or what he might want ? I've written a sort of feeler to Marcovich (copy enclosed) in the hopes that he may tell me something.

I must get that Dutch-Meselson tape back to you: sorry to have hung on to it for so long. You come over really excellently (as always). One thing that surprised me was your reference to six different USAF nerve-gas-munition requirements having been both stated and met during 1953-69. Would it be indiscreet of you to identify them for me ? I know only of the following air munitions having been developed for nerve-gas fills:

750-lb GB bomb, MC-1
1000-lb GB cluster bomb, M34/M34A1
160-gal VX spraytank, TMU-28/B
GB bomblet dispenser munition, CBU-15/A
500-lb GB bomb, Mk 94
500-lb GB splash bomb, Mk 116 Weteye
90-gal multipurpose spraytank, Aero 14B.

But only the first four of these were USAF munitions, and of these I had thought that only the first three had gone into quantity production.

Have you been able to think any further about the matters I put to you in my letter of 19th June ?

As ever,

Julian

Dr Herbert Marcovich
Institut Pasteur
28 rue du Dr Roux
75724 PARIS Cedex 15
France

20 Sept 81

Dear Dr Marcovich,

It occured to me that you might find some small use for the enclosed, which is a reading list I've just got together for myself on Fusarium mycotoxins. There's a good deal more in the literature besides, but the items listed seem to offer an introduction good enough for the likes of me—i.e. someone basically ignorant of the subject. Maybe there'll also be an item or two of interest to you as well.

Personally, I was astounded by the US State Department's announcement. If what it alleged is true, the implications seem so great that one feels obliged to assume that the State Department was very sure indeed of its ground before making the announcement. There would not only be the implication of violation of the 1972 BW Convention, as well as violation of the conventional and customary proscription of use of CW/BW weapons, but also the implication that manufacturers of CW-weapons were already exploiting biotechnologies for agent production—i.e. that the shift out of the domain of petrochemicals had already started. Maybe I attach more significance to the latter than it warrants; but it is certainly not irrelevant to the matter of CW nonproduction verification, to say nothing of the broader consequences of opening up the biotechnologies to weapon applications.

Even so, I find myself deeply sceptical of the State Department's claim. A year or so ago I had heard that a senior US Army Medical Corps officer who was working with the Defense Intelligence Agency on the reports of CW in Laos was speculating that a poison such as T2 toxin was involved. (Hence my allusion to trichothecene mycotoxins in that paper of mine for the Pugwash CW meeting you were at.) He was doing so because T2-intoxication seemed to him to be about the only way of explaining the haemorrhaging that some of the H'Mong refugees seemed to have been describing. Clearly he was attaching high evidential value to the output of that necessarily difficult and uncertain interrogation process. I am told that he had been struck, also by apparently similar allusions to haemorrhaging in certain of the intelligence reports that had come in from Afghanistan (I have no idea what the provenance of these reports was) and also in an old intelligence report he had found in the files relating to the Yemen CW episodes of the 1960s. But because it seemed so improbable that anyone who had decided to resort to poison weapons would have opted for such a difficultly accessible and, in quantitative dosage terms, such a relatively weak poison as T2 mycotoxin, this aetiology appeared ridiculous. (Unless, I suppose, the idea was to camouflage the CW attacks as natural outbreaks of mycotoxicosis).

So, like many other people, I am very curious to learn more about the analytical procedures which the Americans applied to their sample from Kampuchea, including their use of controls and precautions taken to exclude Fusarium contamination. Are such

particulars in the public domain yet, do you know ? If they are, have you a copy I might have ?

With best wishes,

Yours sincerely,

J P Perry Robinson

PS Since mycotoxins fell within the scope of the 1972 BW Convention, reports of their use might perhaps be held to fall outside the UN Expert Group's terms of reference, which are limited to chemical weapons. No doubt this thought has already occured to the Group.

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