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B. subtilus, etc.

4 messages

Matthew Meselson <msmeselson@gmail.com> **Wed, Oct 29, 2008 at 3:13 PM**
To: Jason Bannon <Jason.Bannan@ic.fbi.gov>, Ben Garrett <dier4@aol.com>

Dear Dr. Bannon,

Ben Garrett suggested that I ask you a question I posed to him the other day. If I understand correctly, B. subtillus has been detected in some of the anthrax letters but not in the flask of spores maintained by Dr. Ivins. My question regards the methods of detection employed. If based only on methods requiring viability, could it be that B. subtilus spores in the phenol-containing flask had become inviable during the time between removal of samples by the perpetrator and the later sampling for analysis done by the Bureau?

If DNA sequencing was employed, was there a control experiment in which a sample from the flask was spiked with an appropriate level of B. subtilus spores to make sure that subtilus would have been detected using the extraction and sequencing methods that were employed when the flask material was tested by itself?

On another matter, I attach for your possible interest a memo I wrote a few years ago regarding the effect of triboelectric charging in aiding the dispersal of pure powders. The memo ends with a caveat regarding the fact that so far as I know no experimental test has been done with highly purified anthracis spores -- with the implied suggestion that such a test might provide direct evidence that no special coating is needed in order to obtain a significant amount of dispersal of anthracis spores from an agitated paper envelope.

Incidentally, regarding spore dispersal, I understand from one of the scientists involved in the tests done at DRES in 2001 to measure spore escape from postal envelopes that the B. globigii used in that work was from an old batch of globigii made by Bio-Ferm of Wasco, CA that was unlikely to have been treated in any special way.

Sincerely,

Matthew Meselson

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