U.S. Department of Justice

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September 15, 2008

Dr. Fran Sharples, Director
Board on Life Sciences

Dr. Anne-Marie Mazza, Director
Science, Technology and Law Policy and Global Affairs Division

National Academy of Sciences
500 5th Street, NW
Washington, DC 20001

Dear Drs. Sharples and Mazza,

This letter follows up on our August 22, 2008 meeting in which we first discussed the FBI's desire to enlist the National Academy of Sciences (NAS) to conduct an independent review of the scientific approach used during the investigation of the 2001 *Bacillus anthracis* mailings. On behalf of the Federal Bureau of Investigation (FBI), I would like to thank you for that initial discussion and those that followed and to finalize the FBI's request for NAS to assemble an expert panel for this purpose.

Our expectation is for the NAS to assemble an independent panel. We recognize that this may prove to be a difficult undertaking because during this investigation we sought the advice and directly collaborated with more than 60 pioneering researchers in various scientific fields. Understanding that the panel member selection is exclusively a NAS function, we encourage you to attempt to select individuals not associated with the FBI or with the Bureau's anthrax investigation. Our ultimate goal is to have an independent, fair and comprehensive study.

To frame the scope of the NAS study, we are asking the panel members to consider the following questions:

1) Was the methodology used to identify and assay the genetic mutations observed in *Bacillus anthracis* (BA) samples valid and scientifically accepted?

2) Can genetic assays reliably prove that BA samples from the mailing letters share the same ancestor as the RMR-1029 sample? What are the statistical significance of this finding and the rate of potential false positives (i.e., what are the odds of the BA samples from the letter and RMR-1029 to have the same four genetic mutations but not being related)? Are the four mutation markers used by the FBI genetically stable for attribution purposes?

3) What are the likelihoods that samples with zero, one or two genetic mutations may be the parent material for the anthrax mailings?

4) Is it possible for bacterial DNA to be recovered from sterilized or decontaminated production equipment (e.g., fermentor, lyophilizer, spray dryer, etc.)

5) What effects do growth conditions have on distribution of elements (e.g., Si), stable light isotope ratios, and C-14 dating?

6) Could an agar-based method be used to produce similar spore preparations as those seen in the 2001 BA mailings?

7) How easy is it to contaminate a BA production process (rudimentary or otherwise) with B subtilis?

8) Which methods could be used to explore the distribution and concentration of elements within a BA spore? Do they provide adequate spatial resolution?

9) Can carbon-14 data be used to date the growth of BA samples collected from the BA mailings to within three years of 2001?

10) Are there any reliable methods that can be used to accurately geolocate the facility/location where BA spores may have been grown?

11) Is there a need for post-treatment of BA to result in spore powders with a friable character? Alternatively, can BA samples dried with a rudimentary methodology pose an inhalation hazard resulting in pulmonary anthrax? Were BA spores in 2001 mailings treated post production to make them more friable? Were BA spores in 2001 mailings weaponized?

12) Is it possible for BA spores to penetrate paper envelopes such as those used in the 2001 mailings?

13) Is it feasible for the mail sorting machines to have assisted in the pulverization and aerosolization of the BA spores in the postal facility?

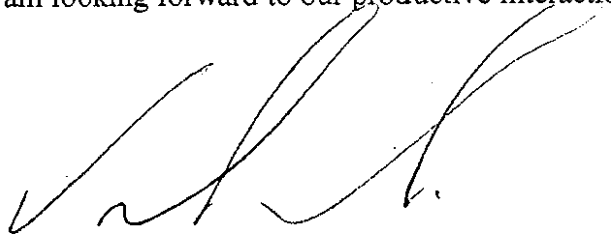
14) Can external cross contamination of letters with BA powders result in pulmonary anthrax?

15) In its totality, and consistent with Federal Rule of Evidence 702, would testimony regarding the methods used to link the mailed anthrax to RMR 1029 be considered by NAS (based upon its review of those methods) to be: (1) based upon sufficient facts or data, and (2) the product of reliable principles and methods?

Lastly, I should point out that a portion of research related to the above questions may be contained in US government classified documents. As such, it will be very desirable if a small number of panel members possessed appropriate USG security clearances to gain access to documents classified at the top secret level.

We are committed to commission this study as soon as practical with the caveat that the funding for this effort will not be available immediately. We plan to identify an appropriate funding source and will be able financially commit to this study in October 2008.

I am looking forward to our productive interactions.



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