Monsanto

FROM (NAME & LOCATION) Dept. of Medicine & Environmental Health - P.E. Berteau, A2SC

DATE: April 17, 1978

cc: David Wood, B2SD
J.G. Laveglia, A2SG

SUBJECT: Effect of PCB's on the reproductive performance of the rhesus monkey

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REFERENCE:

TO J.C. Weber, B2SK

J.G. Laveglia and myself visited Litton Bionetics on April 4 and 5, 1978, to discuss with Dr. David Martin and co-workers the reproduction study on rhesus monkeys fed 0, 5, 25, and 100 µg/kg of Arochlor 1254. A brief audit of data generated so far was conducted and everything appeared to be in order.

The study has now been underway for a little over a year with the animals being bred after 6 months of feeding (i.e. since October 1, 1977). Although no definite conclusions can be drawn at this time, two observations are of concern;

(1) There is a possible effect of PCB's on female fertility; there has been one pregnancy out of an original eight animals in the high dose group, six out of eight in the medium, five out of eight in the low dose and eight out of eight in the control group. In addition, in the high dose group there were two resorptions or abortions in animals that had been pregnant.

(2) Three deaths have occurred among the females in the high dose group. At least two of these deaths appear to be related to the abnormal hematological findings in those females and may be suggestive of bone marrow suppression. No other deaths that can be related to PCB's have occurred.

In the light of these findings, I am strongly recommending that this study be continued, including breeding and feeding of PCB's, for an additional two months beyond the terms of the original proposal (i.e. from April 1 until June 1, 1978). Attached is a copy of a letter from Dr. Martin outlining the costs involved. I am recommending that the semen evaluation be discontinued since this parameter has always been normal, but that all other studies be continued, in particular the hematology (CBC) during these two months. It is difficult to make an exact statement of the total cost since this will depend upon the number of viable infants born and whether there are any further deaths, but I understand that the two months continuation will cost in the order of $15,000. Towards the end of May we can discuss whether the study should be extended further, but by that time the breeding season will have ended and further pregnancies will not be expected.

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The findings so far appear to be in line with those of J.R. Allen but at lower dosages and therefore should be confirmed. I have given Dr. Martin tentative approval to continue as suggested and would appreciate your comments.

Peter E. Berteau

alw

enclosure

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