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JEFFERSON MEDICAL COLLEGE
of
THOMAS JEFFERSON UNIVERSITY

Daniel Baugh Institute of Anatomy
Department of Anatomy
Office of the
Director and Chairman

Philadelphia, 19107
(215) 928-7820

November 12, 1982

Dr. Franklin D. Griffith
Toxicology Services
Medical Department
220-2E-02 3M Center
St. Paul, Minnesota 55101

Dear Dr. Griffith:

I would like to thank you and your associates for the hospitality extended to me during my recent visit. In particular, Drs. Ebbens and Lamprecht were most cooperative under what must have been for them somewhat difficult circumstances. Their willingness and ability to retrieve and make available the raw data and both the histologic and gross anatomical specimens which I requested was commendable and essential to my review.

I had ample opportunity to make a critical spot check and personal examination of the actual microscopic and gross anatomical specimen previously recorded in the raw data sheets as being abnormal. No statistical or score sheet mode of conclusion is possible, but the great majority of the stained and gross preparations of eyes which had been reported as abnormal are actually quite normal term fetal rat eyes. A standard artifact of preservation and a normal developmental sequence were erroneously identified and reported as abnormalities.

During the course of the original studies, two-thirds of the specimens were prepared for evaluation of skeletal morphology. The remaining one-third was used for soft tissue evaluation and from these, some were evidently selected for histologic preparation on the basis of a technician reporting the presence of one of the artifacts. Coded specimens were not employed during either the identification or selection phases of the experiment and one can observe a general date, if you will, on which the "findings" began to become reported as test substance-related adverse effects. Factors such as these preclude development of a fully documented view. However, in addition to clearly establishing that the "effects" reported are normal and expected occurrences, I was able to further come to the perception that the test substance actually poses no unique hazard to the conceptus.

One cannot determine how much negative data is needed to overcome the one misidentified positive. It is necessary in my view, however, to resolve any lingering scientific questions that may exist. This is best achieved by subjecting both FC95 and FM3422 to carefully controlled and executed state-of-the-art safety

evaluations in an independent outside laboratory. I recommend that a segment II-type of safety evaluation be made with each substance in pregnant rats.

I am confident that the compounds will prove to not be hazardous to development. 3M Corporation is to be commended for its excellent response to an apparent substantial risk. The concern was unwarranted and any lingering impugnment of FC95 and FM3422 regarding developmental toxicity needs to be removed.

Sincerely,

E. Marshall Johnson

E. Marshall, Johnson, Ph.D.
Professor and Chairman
Director, Daniel Baugh Institute of Anatomy

EMJ:sp