

Monsanto

FROM (NAME & LOCATION)

DATE November 28, 1977
SUBJECT RHESUS MONKEY REPRODUCTIVE STUDY
REFERENCE Special Study SCT-77-SS-3

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TO Orville Hicks:

After reviewing the protocol proposed by Bionetics for the subject study, I feel that the amount of tissue analysis can be materially reduced through a statistical experimental design. The recommended design would involve testing of one fourth of the proposed samples, while retaining the others for follow-up checking if required.

Since the protocol provides for differences in treatment of males and females, and cessation of treatment after parturition or 12 months, it appears logical to divide the design into four segments:

1. Males, first eight time periods.
2. Males, last four time periods.
3. Females, first eight time periods.
4. Females, last four time periods.

For each of these segments, Table 1 shows the recommended reduced testing program, which is a 1/4 replicate of the complete testing program. Each animal is considered a random sample of the population but provision is made for comparing the results of individual animals if required.

Since you have already begun testing, there will be some samples tested which are not in the design. These can also be incorporated in the statistical analysis. Multiple regression analyses will be used on the individual segments of the design, and on any combination of segments that may be of interest. If you have any questions, please let me know.

John D. Hitchen

/jc

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TABLE Ia

MALES

Amt Fed ($\mu\text{g}/\text{hg}/\text{day}$)	0	5	25	100
Month (proposed)	0	1,2		2,3
	2		3,4	1,4
	5	3,4		1,4
	6		1,4	2,3
	8	2,3		1,2
	10	1,4		3,4
	12		2,3	1,4
	14	1	2	3 4
	16	2	3	4 1
	18	3	4	1 2
	20	4	1	2 3

Numbers in table refer to designation of animal tested.
There are 16 animals, 1-4 in each feed level category.

TABLE 1b

FEMALES

Amt Fed ($\mu\text{g}/\text{hg}/\text{day}$)	0	5	25	100
Month (proposed)	0	1,2,3,4,		3,4,5,6
	2	5,6,7,8	1,2,7,8	
	4	1,2,3,4,	3,4,5,6.	
	5	5,6,7,8		1,2,7,8
	6	1,2,7,8	3,4,5,6	
	8	3,4,5,6		1,2,3,4
	10	1,2,7,8		5,6,7,8
	12	3,4,5,6	1,2,7,8	
	14	1,2	3,4	5,6
	16	3,4	5,6	7,8
	18	5,6	7,8	1,2
	20	7,8	1,2	3,4

Numbers in table refer to designation of animal tested. There are 32 animals, 1-8 in each feed category.