

BIOLOGICAL EFFECTS of RADIO FREQUENCY WAVES

by

JAMES C. LIN, JOHN C. NELSON AND MERLIN E. EKSTROM

Department of Electrical Engineering
WAYNE STATE UNIVERSITY
DETROIT, MICHIGAN 48202

Contract No. N00014-75-C-0637

Work Unit No. NR 201 173

Scientific Report No. BES-2

AUGUST 1979

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Prepared for

OFFICE OF NAVAL RESEARCH
PHYSIOLOGY PROGRAM
U.S. DEPARTMENT OF THE NAVY
ARLINGTON, VIRGINIA 22217

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REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER BES-2	2. GOVT ACCESSION NO.	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) Biological Effects of Radio Frequency Waves		5. TYPE OF REPORT & PERIOD COVERED Final Technical 1/1/75 - 9/30/78
		6. PERFORMING ORG. REPORT NUMBER BES-2
7. AUTHOR(s) James C. Lin, John C. Nelson and Merlin E. Ekstrom		8. CONTRACT OR GRANT NUMBER(s) N00014-75-C-0637
9. PERFORMING ORGANIZATION NAME AND ADDRESS Department of Electrical Engineering/ Wayne State University Detroit, MI. 48202		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS NR201-173
11. CONTROLLING OFFICE NAME AND ADDRESS Office of Naval Research 800 North Quincy Street Arlington, Virginia 22217		12. REPORT DATE August, 1979
		13. NUMBER OF PAGES 190
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office)		15. SECURITY CLASS. (of this report) Unclassified
		15a. DECLASSIFICATION/DOWNGRADING SCHEDULE
16. DISTRIBUTION STATEMENT (of this Report) Approved for Public Release; distribution unlimited		
17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)		
18. SUPPLEMENTARY NOTES		
19. KEY WORDS (Continue on reverse side if necessary and identify by block number) Radio frequency fields, mice, growth, hematology, histopathology		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) See next page.		

DD FORM 1473

EDITION OF 1 NOV 65 IS OBSOLETE
S/N 0102-LF-014-6601

unclassified

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The effect of repeated exposure of C3H mice to radio frequency (RF) energy (148MHz) was investigated. The animals were exposed to 0.5 mW/cm^2 (63.25 V/m) in a TEM exposure chamber. They were exposed for one hour a day, five days a week, beginning on the 4th and 7th day postpartum, for 10 weeks. Both RF and sham irradiated animals were weighed daily from the beginning of irradiation treatments for ten weeks, and weekly thereafter. Blood was drawn from tail vessels of the mice for analysis at 28, 70, 100, 250, 300, 260 and 600 days of age. Necropsy and histopathological examinations were performed on randomly selected animals from each group. The results indicated that the formed elements in the blood were not affected by the exposure. The means of body mass of the irradiated and control animals were comparable. No significant differences in the lesion onset, incidence, prevalence, extent, or type were observed when repeated RF-exposed animals were compared with sham-control groups. The study thus suggested that at the exposure levels studied, biological effects do not occur or are not detectable from the parameters used.

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S/N 0102- LF- 014- 6601

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James C. /Lin, John C. /Nelson ~~and~~ Merlin E. /Ekstrom *

Department of Electrical Engineering
Wayne State University
Detroit, Michigan 48202

Contract No. 42 / N00014-75-C-0637 /
Work Unit No. NR201-173

Scientific Report No. / BES-2 /

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ABSTRACT

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The effect of repeated exposure of C3H mice to radio frequency (RF) energy (148 MHz) was investigated. The animals were exposed to 0.5 mW/cm^2 (63.25 V/m) in a TEM exposure chamber. They were exposed for one hour a day, five days a week, beginning on the 4th to 7th day postpartum, for 10 weeks. Both RF and sham irradiated animals were weighed daily from the beginning of irradiation treatments for ten weeks, and weekly thereafter. Blood was drawn from tail vessels of the mice for analysis at 28, 70, 100, 250, 300, 360 and 600 days of age. Necropsy and histopathological examinations were performed on randomly selected animals from each group. The results indicated that the formed elements in the blood were not affected by the exposure. The means of body mass of the irradiated and control animals were comparable. No significant differences in lesion onset, incidence, prevalence, extent, or type were observed when repeated RF-exposed animals were compared with sham-control groups. The study thus suggested that at the exposure levels studied, biological effects do not occur or are not detectable from the parameters used. .

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I. INTRODUCTION

The impact of nonionizing electromagnetic radiation on the human environment has now become a matter of concern to many governmental agencies, private organizations, and the general public. The increasing utilization of electromagnetic energy for various applications in communication, target acquisition, industrial operation, medical practice and consumer products has elicited new and more critical concern over possible biological effects and health hazards. For many years it has been known that radio frequency (RF) electromagnetic radiation of sufficient high intensity can generate heat in tissue structures as a result of energy conversion. In fact, application of the property for deep tissue heating (short wave diathermy) has become a standard technique in physical medicine for treating a wide range of musculoskeletal diseases (Lehmann, 1971).

Despite the extensive literature addressing the biological effects of microwave radiation, information regarding the biological effects of radiation in the frequency range of 30-300 MHz is extremely scarce.

One study (Addington, et al., 1961) has shown that moderate to high incident power (10 to 300 mW/cm²) RF radiation produces a significant body temperature rise in dogs irradiated for one hour. Moreover, the time required to raise the rectal temperature a given number of degrees ranged from 20 to 350 per cent less for parallel polarization (electric-field parallel to the long axis of

the dog's body) than for perpendicular polarization. In another study, rats died quickly after single exposure to high field strengths (1000-5000 V/m) radio waves (70-200 MHz), and the animals showed marked evidence of hyperthermic stress and severe vascular disorders upon necropsy. In experiments (Tolgskava and Gordon, 1973) in which rats were irradiated daily for 5 months with low field strength (10 to 150 V/m) RF radiation, reversible morphological changes in the neural tissues and parenchyma of the heart, liver and testis were observed.

The effects of modulated RF radiation have also been studied. In vivo treatment of Chinese hamster bone marrow and testicular cells at 30-35 MHz for 1 to 9 days induced significant increases of abnormal cells (Mickey, et al., 1975). The peak-to-peak field strength used was 460 V/cm and the pulse width was 77 μ sec, (pulse repetition rate=1000). Changes in brain calcium efflux and transient brain rhythms were reported (Bawin, et al., 1973: 1975) in cats exposed to low power (147 MHz) that was amplitude-modulated at biological frequencies (~35 Hz); no effect was observed in the absence of modulation.

While the biological hazards of moderate to high power RF energy are clearly related to the thermoregulating capacity of the animal, the effects of low level and modulated RF fields and waves are far from understood.

It is significant to note that measurements made at many locations distributed throughout 12 large cities in the United States show that the main source of ambient RF energy is the broadcast service (Janes, et al., 1977; Tell and Mantiply, 1978).

Estimation of population exposure in these cities show that half of the population is potentially exposed to $0.005 \mu\text{W}/\text{cm}^2$ and approximately one percent of this population is potentially exposed to levels greater than $1 \mu\text{W}/\text{cm}^2$ for prolonged periods of time. It is therefore important to advance the current understanding of RF interaction with biological systems.

A particular problem is the lack of realistic theoretical and/or experimental description of induced fields in animals and humans. This stems mainly from the difficulties arising from the complex shape of mammalian body and also from the fact that previous investigators have assumed that only the electric field induced absorption in the body of man is of significance at low frequency (Rogers, 1969; Schwan, 1972). Recent results (Lin, et al., 1973; Durney, et al., 1975) have indicated that in models of man, magnetic coupling is as important as electric coupling at lower frequencies. Furthermore, it was found that the total absorbed energy can be obtained from the sum of quasi-static electric and quasi-static magnetic components at these (30-300 MHz) frequencies.

A summary of the computed average specific absorption rates (SAR) in homogeneous (muscle) spherical (Lin, et al., 1973) and spheroidal (Durney, et al., 1978) models of human and mouse is given in Table 1. The incident plane wave power density is $1 \text{ mW}/\text{cm}^2$ which corresponds to a peak electric-field strength of 86.8 V/m. In general, the energy absorption is quite small for both humans and mice in the frequency range of 10 to 300 MHz. The computed absorption is higher for the spheroidal model than

Table 1 Computed average specific absorption rates (SAR) in simulated human and mouse exposed to 1 mW/cm² of incident plane wave power density

Simulated Human (70 kg)		Simulated Mouse (20g)		Ratio		
Freq (MHz)	Sphere (mW/g)	Spheroid (mW/g)	Sphere (mW/g)	Spheroid (mW/g)	Human/mouse [*]	Human/mouse ^{**}
10	6.8×10^{-4}	2.0×10^{-3}	1.9×10^{-5}	2.4×10^{-4}	35.8	8.3
50	6.1×10^{-3}	9.3×10^{-2}	4.2×10^{-4}	4.6×10^{-3}	14.5	20.3
100	1.2×10^{-2}	1.2×10^{-1}	1.4×10^{-3}	1.3×10^{-2}	8.6	9.2
150	1.5×10^{-2}	6.0×10^{-2}	2.9×10^{-3}	2.4×10^{-2}	5.2	2.5
200	1.9×10^{-2}	5.0×10^{-2}	4.5×10^{-3}	3.3×10^{-2}	4.2	1.5
250	2.0×10^{-1}	4.5×10^{-2}	5.3×10^{-3}	5.5×10^{-2}	37.7	0.8
300	1.9×10^{-1}	4.0×10^{-2}	6.0×10^{-3}	6.2×10^{-2}	31.7	0.7

* for spherical models, ** for spheroidal models

for the spherical model. The average SAR's for the human models are slightly higher than that for the mouse model and reach maximum values in this frequency range. The ratio between human and mouse absorption varies between 4 and 37 for the spherical models, and between 1 and 20 for the spheroidal models. At 150 MHz, the average SAR in mouse is about 2.5 to 5 times less than in humans exposed to the same incident power. A plane wave power density of 0.5 mW/cm^2 impinging on a mouse therefore would correspond to 0.11 to 0.21 mW/cm^2 impinging on a human subject. Note that while this level is considerably less than the 10 mW/cm^2 guideline for continuous exposure, it is more than one hundred times higher than the estimated level encountered by 99 percent of the population in major cities in the United States.

The purpose of the present study is to investigate, through an interdisciplinary effort and under controlled laboratory conditions, the effect of low-level RF radiation on the growth, hematology and histopathology of mice. Of course, one must keep in mind that all effects are not necessarily hazardous. In fact, some effects may have beneficial applications under appropriately controlled circumstances. Therefore, RF induced biological changes must be sufficiently understood so that their clinical significance can be determined, their hazard potential assessed, and the proper benefit/risk analysis applied to establish realistic trade-offs.

The results indicate that the formed blood elements of the mouse are not affected when the animals are exposed to low-level RF fields, $(0.53 \text{ mW/cm}^2$ or 63.25 V/m peak in a TEM exposure chamber

operating at 148 MHz). The comparable gain of body masses of the exposed and control animals of each group suggest that the animals remain in comparably good health during the experimental periods. Necropsy and histopathologic examinations of major organ systems have not revealed changes that could be attributable to this level of RF exposure.

II. RF EXPOSURE

Exposure System

The exposure system consists of four aluminum exposure chambers (TEM cells) which have been designed, constructed and tested for operation between 50 and 200 MHz. The design closely follows that described by Crawford (1974). It consists of a section of TEM mode rectangular transmission line, tapered at both ends to transitions which adapt the chamber to 50-ohm coaxial cables using type N connectors (see Figure 1). The dimensions of the square section are 50 cm x 50 cm x 50 cm. The distance between the center conductor plate and the top wall is 25 cm. The advantages of the exposure chamber, in addition to broadband, are compactness and portability which eliminates the need for an expensive anechoic chamber or shielded room.

The frequency response of the chamber was tested by connecting the input and output terminals to a Rhode & Schwarz Polyskop II. Figure 2 shows the frequency characteristics between 50 and 300 MHz. It is seen that the frequency behavior of the chamber is flat between 50 and 200 MHz, and deteriorated somewhat for frequencies above 200 MHz. At the operating frequency of 148 MHz, the exposure chamber has a characteristic impedance

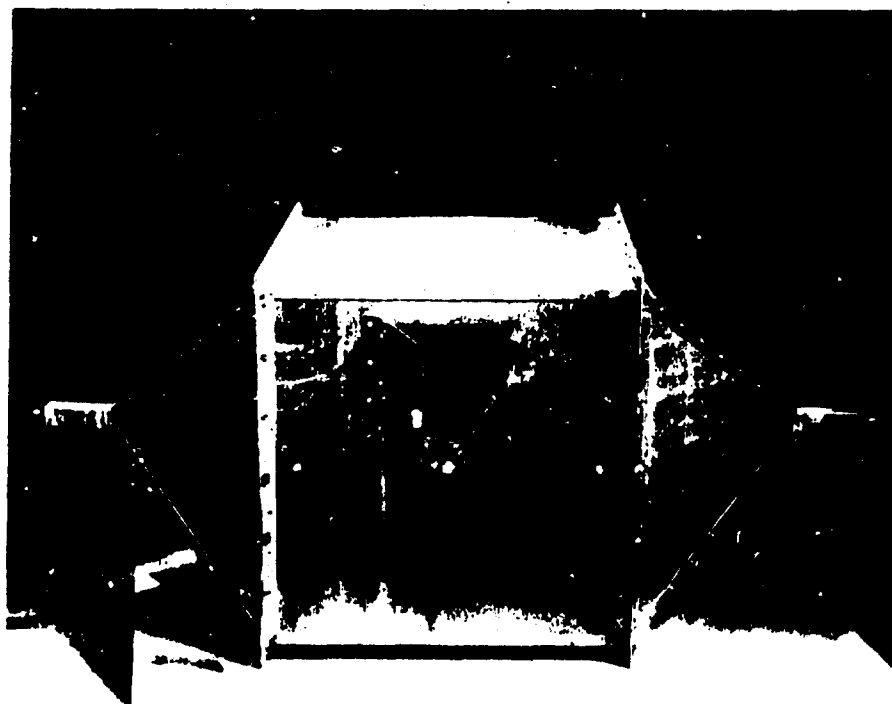


Figure 1. A TEM coaxial exposure chamber designed for operation between 50 and 300 MHz.

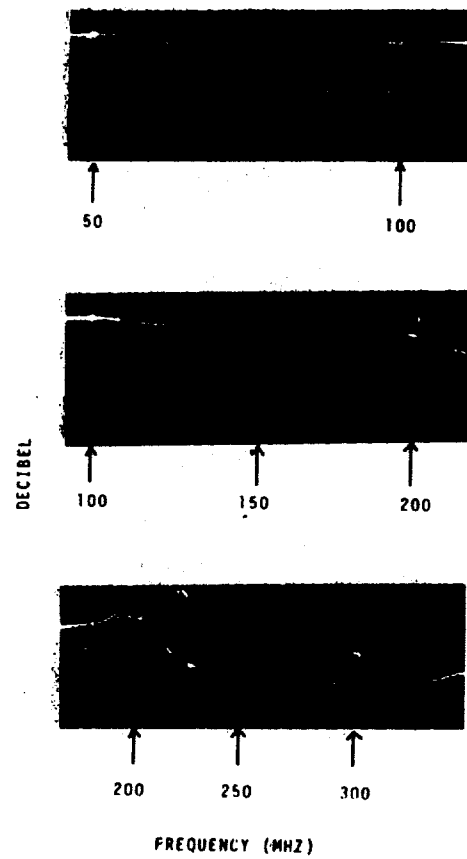


Figure 2. Frequency response characteristics of the TEM exposure chamber.

of 50 ohms. It is therefore matched to the input coaxial cable.

Transmission line exposure chambers similar to that shown in Figure 1 have been shown to be extremely useful for generating uniform plane wave fields in a confined space (Crawford, 1974; Baird, 1974). The wave impedance throughout the chamber has been shown to be very close to the intrinsic free-space impedance. The electric field or power density at the center of the upper chamber, measured using a National Bureau of Standard (NBS) electric energy density meter, is shown in Figure 3. It can be seen that the calculated absolute electric field value using $E = [(PR)^{1/2}]/d$, where P is the net forward power, R = 50 ohms, and d is the distance of separation between the center conductor and the top chamber wall, is exactly the same as that measured using the NBS meter. The results obtained using an Instrument for Industry (IFI Model EFS-1) electric field sensor are also shown. In general, the IFI measurements were higher than the NBS values.

The field (or power density) distribution in the plane midway between the center conducting strip and the top wall of the upper chamber was calibrated using an NBS electric energy density meter. The transverse distribution along the center line is shown in Figure 4. It is seen that the field distribution is quite uniform. In fact, the electric field strength is approximately the same within a horizontal region of 30 cm by 30 cm around the center of the upper chamber.

During exposure, four animals are located at four standard positions, within the chamber and are exposed to the same

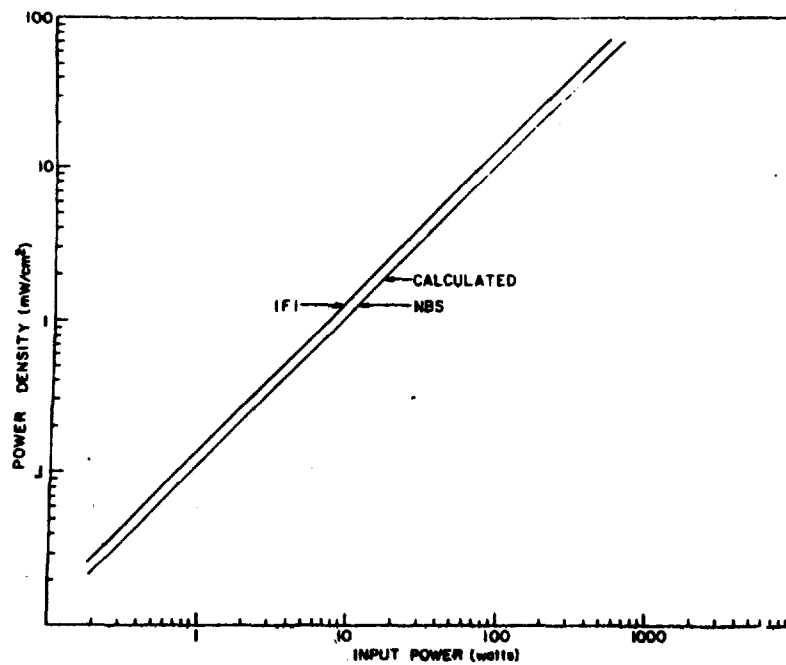


Figure 3. Power density at center of upper chamber. A comparison of measured and computed values.

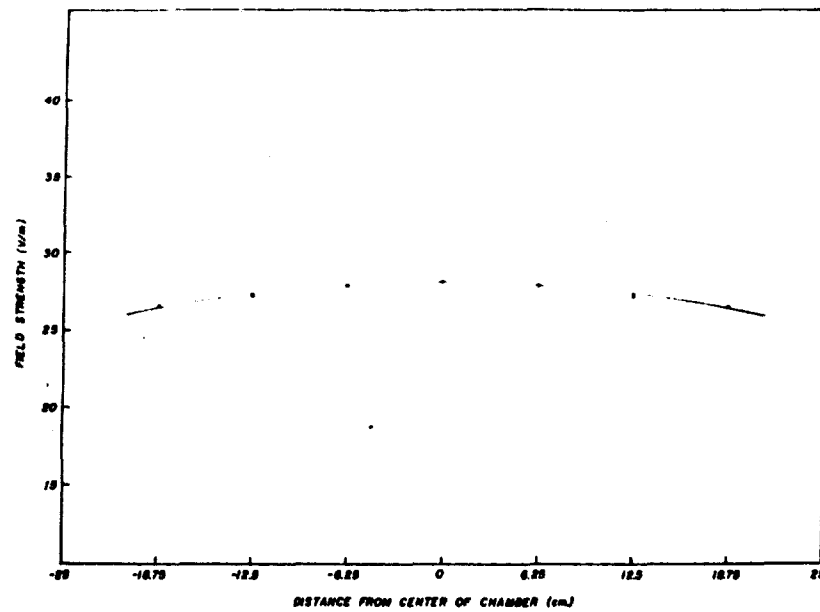


Figure 4. Transverse field distribution inside the exposure chamber as measured along the center line above center strip.

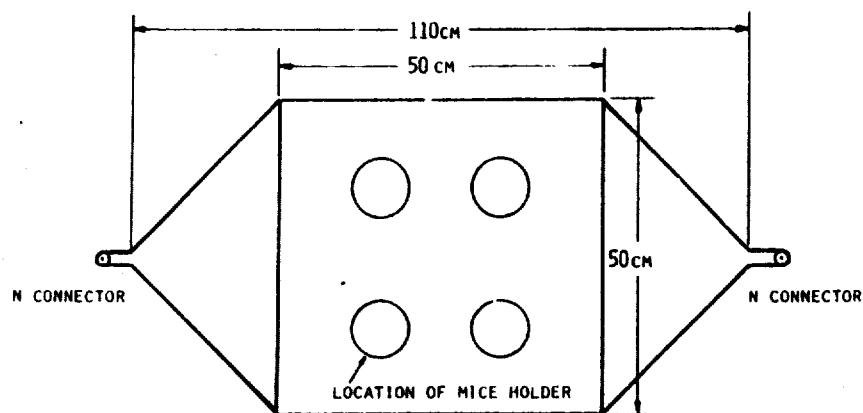


Figure 5. Schematic of TEM coaxial exposure chamber showing standard animal locations for simultaneous irradiation of four mice. The incident power density (or field strength) is virtually the same at all four locations.

incident power density (Figure 5). For the results reported, an incident power density of 0.53 mW/cm^2 is used which corresponds to a computed average specific rate of absorbed RF energy of 0.013 mW/g using a mass equivalent muscle spheroid (Durney, et al., 1978).

Styrofoam cups measuring 6.5 cm high and 8.5 cm in diameter (Dart container 8S12) were used for confining the animals during exposure (see Figure 6). Acrylic plastics have been shown (Lin, et al., 1976; 1977) to be inadequate as animal holders since they perturb the incident electromagnetic field. Two cups are stacked together to form a restrainer for each animal. Ten 0.24 cm diameter holes were drilled in the thin plastic lid to provide ventilation. This holder produces minimal stress in the animals and minimal distortion to the incident field. With four animals in the chamber at the same time, as indicated in Figure 5, the total volume occupied by the animals and their restrainers is less than 1/5th of the upper chamber volume. One would therefore expect a fairly small perturbation of the TEM field due to the animals' presence. This point has also been experimentally ascertained using an NBS electric energy density probe. The complete exposure system is shown in Figure 7. The RF energy generated by the signal source (HP 608C) is amplified in three stages to reach a maximum of 1000 watts at the input of the chamber. The forward and reflected powers are measured using two Bird Model 43 Wattmeters with appropriate plugins. The maximum electric-field strength obtainable at the center of the chamber is greater than 900 V/m, continuously variable

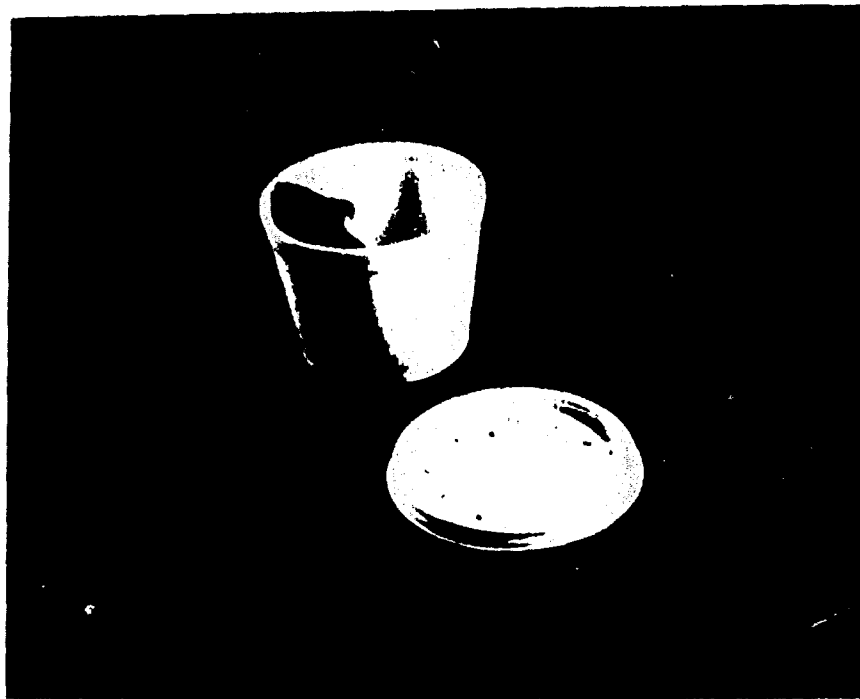


Figure 6. Mouse in a Dart 8S12 styrofoam container, which served as the animal holder.

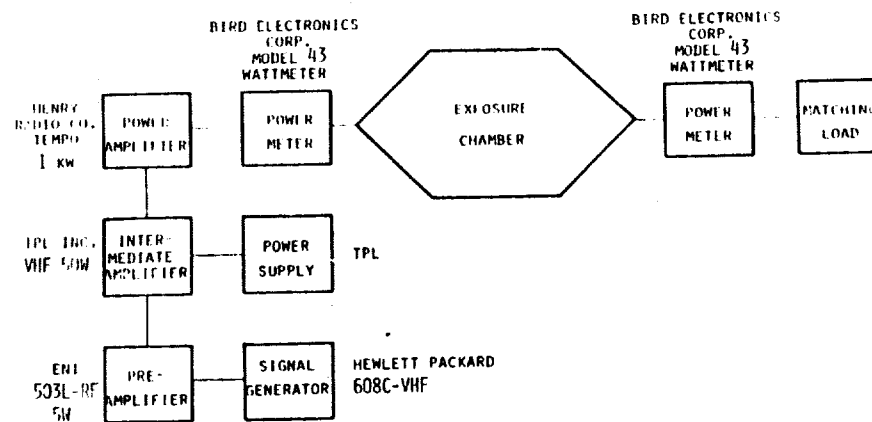


Figure 7. Schematic of RF exposure system.

from 0 V/m, at the operating frequency of 148 MHz. The corresponding incident power density is from 0 to 100 mW/cm².

Exposure Protocol

To test the effects of repeated exposure to RF fields, mice were exposed daily for one hour a day, five days a week, from the 4th - 7th day postpartum for 10 weeks. Mice were divided into two groups to serve as control and exposed, respectively. The animals were weighed daily from the beginning of RF irradiation to 10 weeks, and weekly thereafter. Groups of four were placed in either the control or irradiate chambers at the four standard positions previously mentioned. Each session usually began at 0900 hours and lasted for 5 to 6 hours. The assignment to time of the day of exposure was random.

III. EXPERIMENTAL MATERIALS

The subjects were an inbred strain of mice (C3H/StCr/Br) acquired from Charles River Breeding Laboratories (Wilmington, Mass.). Six week old breeders were set up in a breeding colony, using a female-to-male ratio of 3 to 1 and a non-forced breeding system. After an acceptable breeding record (6 for the first litter), the offsprings were grouped and used as shown in Table 2. Note that the animals were randomly assigned to control and exposed groups except that an attempt was made to match the ratio of females to males in each group.

The effect of repeated RF exposure was investigated using 136 animals in three replications (Table 2). They were exposed for one hour a day, five days a week, beginning on the 4th to the 7th day postpartum for 10 weeks. Mice were divided into two groups to serve

Table 2 Animals used for experiments involving repeated exposure.

Experiment	Age at 1st Exposure (days)	Number of Animals			
		sham-exposed		RF-exposed	
		Female	Male	Female	Male
F1-2	4-7	11	13	13	11
F3-2	4-7	11	13	12	12
F4-2	4-7	11	9	10	10

as control and exposed, respectively. The offspring were weaned at 21 days of age. The three exposure periods encompassed all seasons of the year.

The animals were housed in the same room where RF exposures were conducted. The temperature and relative humidity of the room were kept between 20° to 24°C and 35 to 65 percent, respectively. They were initially monitored at least twice daily and continuously later using a Bacharach Tempscribe and a Hygrothermograph, respectively. Except during the one-hour exposure periods, food (Purina Mouse Chow 5015) and water were provided ad libitum.

The animals were maintained under nonbarrier conditions. No other animal research projects were housed in the building thus the possibility of exposure to infectious agents common to laboratory mice was markedly reduced. The animals were kept in either polypropylene or polycarbonate cages (dimensions 15cm H x 25cm L x 19cm W); woodchip contact bedding (Sani-chips, P.J. Murphy, Moonachio, N.J.) was utilized. The standards of animal care and use met or exceeded those set forth in the Guide for the Care and Use of Laboratory animals, DHEW Publication No. (NIH) 78-23. The study was accomplished in facilities accredited by the American Association for Accreditation of Laboratory Animal Care (AAALAC).

Quality control assurance of animal health was accomplished principally through clinical observations, and necropsy examinations. Complete blood cell counts and the evaluation of weight gain and maintenance patterns also significantly contributed to the health screening process. Serum specimens were collected from

randomly selected animals and submitted to a commercial laboratory (Microbiological Associates, Animal Disease Diagnostic Testing Service, Bethesda, Md.) for serodiagnostic testing. Tests were accomplished for the Sendai virus, pneumonia virus of mice (PVM), mouse hepatitis virus (MHV) and the lymphocytic choriomeningitis virus (LCM). No evidence of infection with these agents, that generally cause latent or subclinical infection, was detected.

IV. BIOLOGICAL PROCEDURES

Growth

The animals were weighed daily on a top-loading electronic balance (Ainsworth) from the 4th to the 7th day postpartum to 10 weeks of age, and weekly thereafter until the animals die or are terminated at old age. The change in body mass served as a quantitative index of growth and as an indicator of general health status.

Hematology

Peripheral blood was withdrawn from the tail vessels of the mice for hematological evaluation at 28, 70, 100, 250, 300, 365, and 600 days of age. The 28th and 70th day samples were taken immediately after Sham or RF exposure.

The mice were restrained but not anesthetized in a well-ventilated round plastic tube of appropriate body dimensions to minimize stress effects during the collection procedure. A vessel in the lower portion of the tail was cut with a sharp scalpel blade (#10). Blood was then drawn into a heparinized 20 μ l ($\pm$ 0.5%) micropipet and rapidly transferred to a Coulter Accuvette containing 10 ml of Isoton standard solution. This first dilution

procedure, performed manually, yielded a 1:500 diluted solution. An accuracy of $\pm 0.1\%$ was maintained by dispensing the isoton via an Echols automatic pipettor.

The hematocrit was determined using micro-techniques employing a Clay Adams Readacrit centrifuge. In a manner similar to that described above, blood was collected directly from the same cut vessel with a 15 μ l micro-hematocrit capillary tube. Finally, a small drop of blood was used to prepare a differential slide. The total blood volume required for hematological analysis was thus less than 45 μ l, and seldom was more than one tail-cut necessary. Note that the complete procedure was performed rapidly to avoid any clotting of the capillary blood which could result in erroneous blood parameter values. This collection technique was refined so that the total withdrawal time did not exceed two minutes.

Leukocyte and erythrocyte counts were automatically determined by a Coulter model ZBI counter. A small volume of the 1:500 dilution isotonic solution was further diluted to 1:50,000 solution with a Coulter automatic diluter. This new dilution was used to perform the erythrocyte counts. The leukocyte counts and the hemoglobin values (g/dl) were determined from the first dilution. The accuracy of the Coulter Hemoglobinometer has been verified by spectrophotometric methods. Likewise, blood counts have been compared to hemacytometer chamber counts with very good correlation. After calibrating the Coulter counter with known standards the accuracy of counts via the manual dilution techniques was found to be within 1% of the accepted count values. Similar standards

were used to calibrate the Hemoglobinometer.

Human operator errors associated with leukocyte differential counts were reduced by randomly dividing work load between two technicians. In independent studies, there was acceptable operator correlation of cell classification for any given slide

Histopathology

At least two animals were randomly selected from each control and exposure group to undergo complete necropsy at 28, 70, 100, 250, 300, 365 and 600 days of age. The animals were killed in a closed chamber using carbon dioxide delivered from a compressed gas tank. During the necropsy procedure, macroscopic examination of the carcass and all tissues was performed, and photographs were taken of the intact viscera.

Kidney, spleen, thymus, testicle, ovary, adrenal, thyroid, lung, heart, urinary bladder, brain, eye, skin, uterus, preputial gland, salivary gland, stomach, small intestine, large intestine, liver and pancreas were processed for histologic examination using the light microscope. The tissues were fixed in 10% neutral buffered Formalin and then were dehydrated, cleared, impregnated and embedded in paraffin; sectioned at 6-8 μ m, mounted on a 5 by 7.5 cm glass slide, stained with hematoxylin and eosin, and cover slipped. The sections were then screened in the "blind" for the presence of microscopic lesions. Lesion findings in control and exposed animals were then compared and evaluated.

RF or sham exposed animals that died during the study period were necropsied to establish the cause of death and to assure the

the absence of contagious infectious disease. The monitoring included evaluation of colony stock animals that were housed in the room with RF exposed and control animals. These animals were evaluated to aid in establishing normal biological baseline data.

Animals found in a weak or moribund condition were humanely euthanized using carbon dioxide in a closed chamber. The animals were then necropsied immediately or alternatively the body cavities were opened and the carcass was fixed in 10% buffered formalin and examined for pathologic change at a later time. Aged (500-900 days) RF exposed animals and sham irradiated animals were randomly selected for necropsy to evaluate aging changes.

Necropsy observations were recorded and the reports filed; the various types of non-neoplastic and neoplastic lesions noted were photographed for documentation purposes.

Statistical Analysis

The student's t-test was employed to assess the significance of the effects of RF exposure on mass gains and hematological parameters. The Chi-square test with Yate's correction for continuity was used to determine the significance of histopathological findings.

V. RESULTS AND DISCUSSION

Growth

There were no significant differences between the RF and sham exposed mice in terms of growth as judged by mean body mass gains. Figure 8-13 present the mean body masses for the three experiments according to sex. For the F3-2 experiment shown in Figures 8 and 9 the mean body masses of RF-exposed males were significantly ($p < 0.05$)

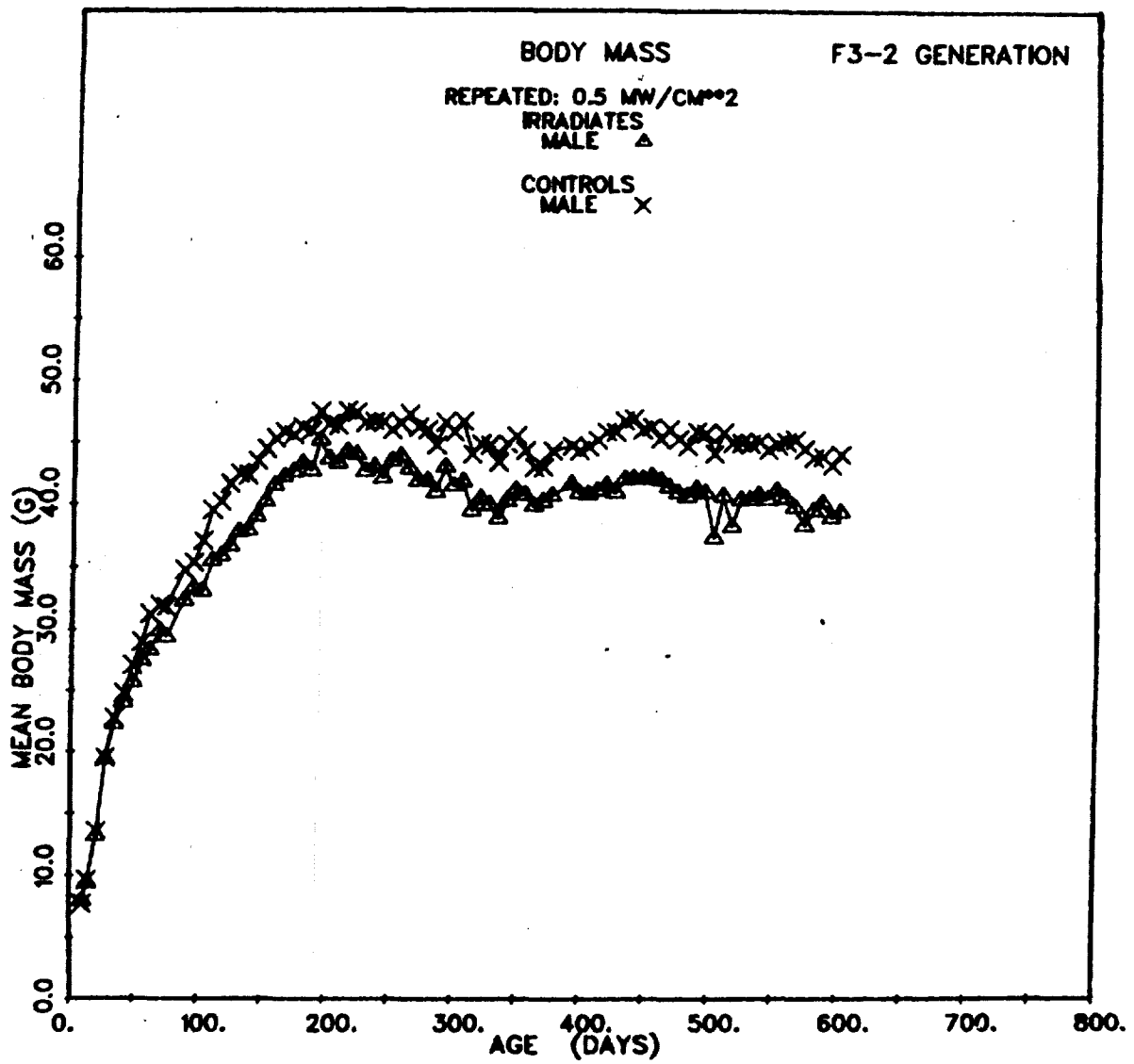


Figure 8. Mean body mass of sham-irradiated and irradiated F3-2 male mice.

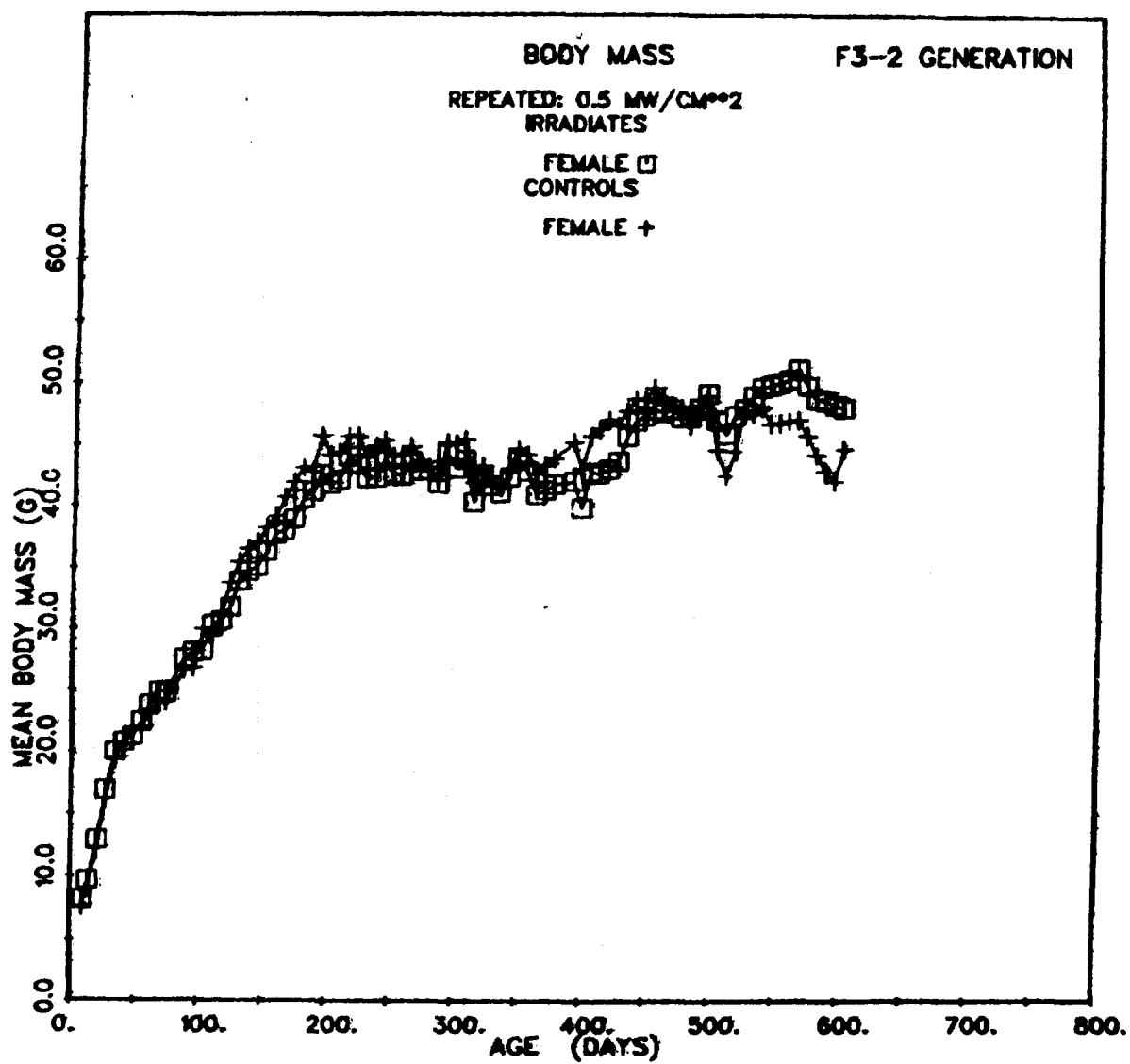


Figure 9. Mean body mass of sham-irradiated and irradiated F3-2 female mice.

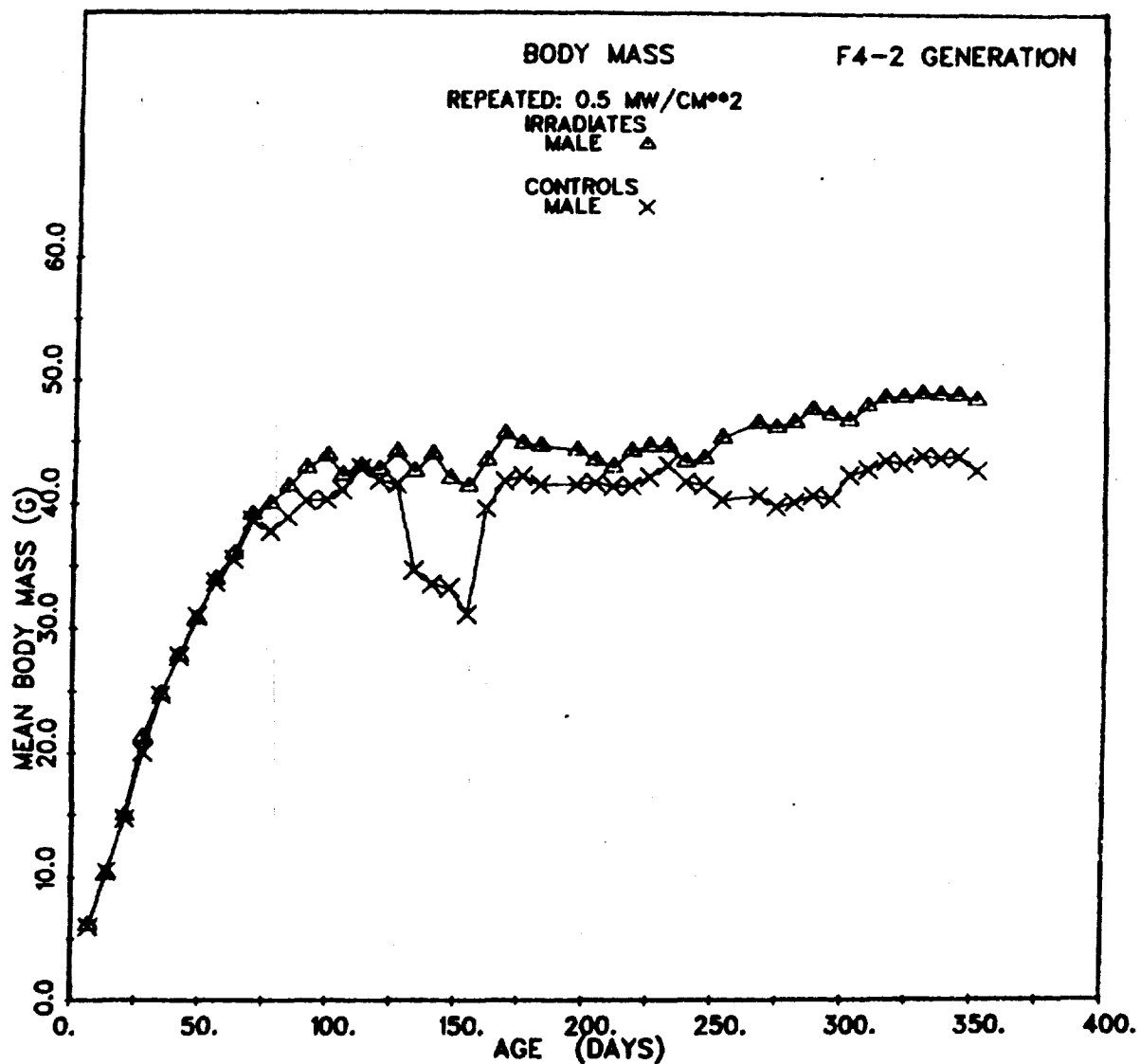


Figure 10. Mean body mass of RF- and sham-irradiated F4-2 male mice.

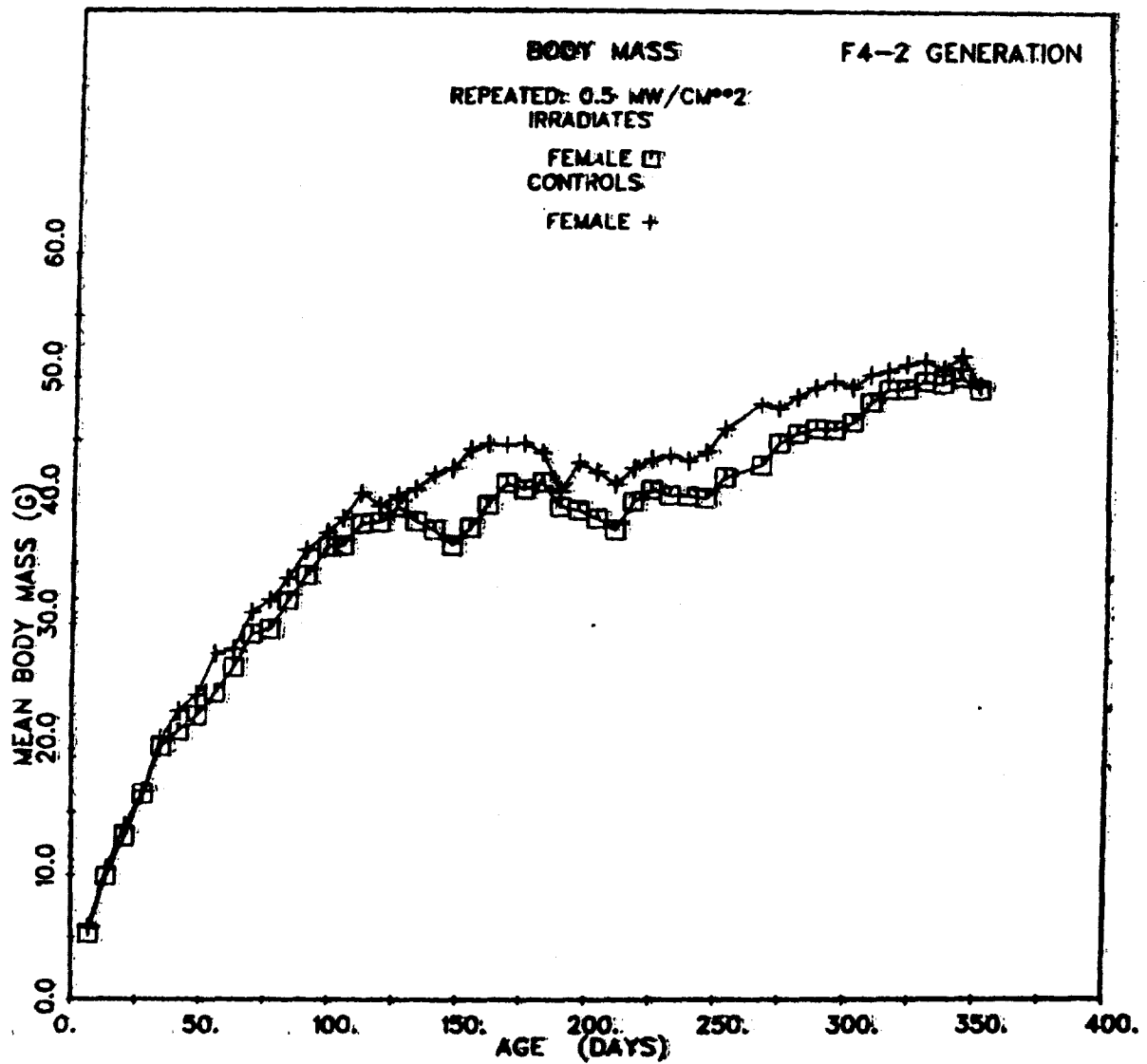


Figure 11. Mean body mass of RF- and sham-irradiated F4-2 female mice.

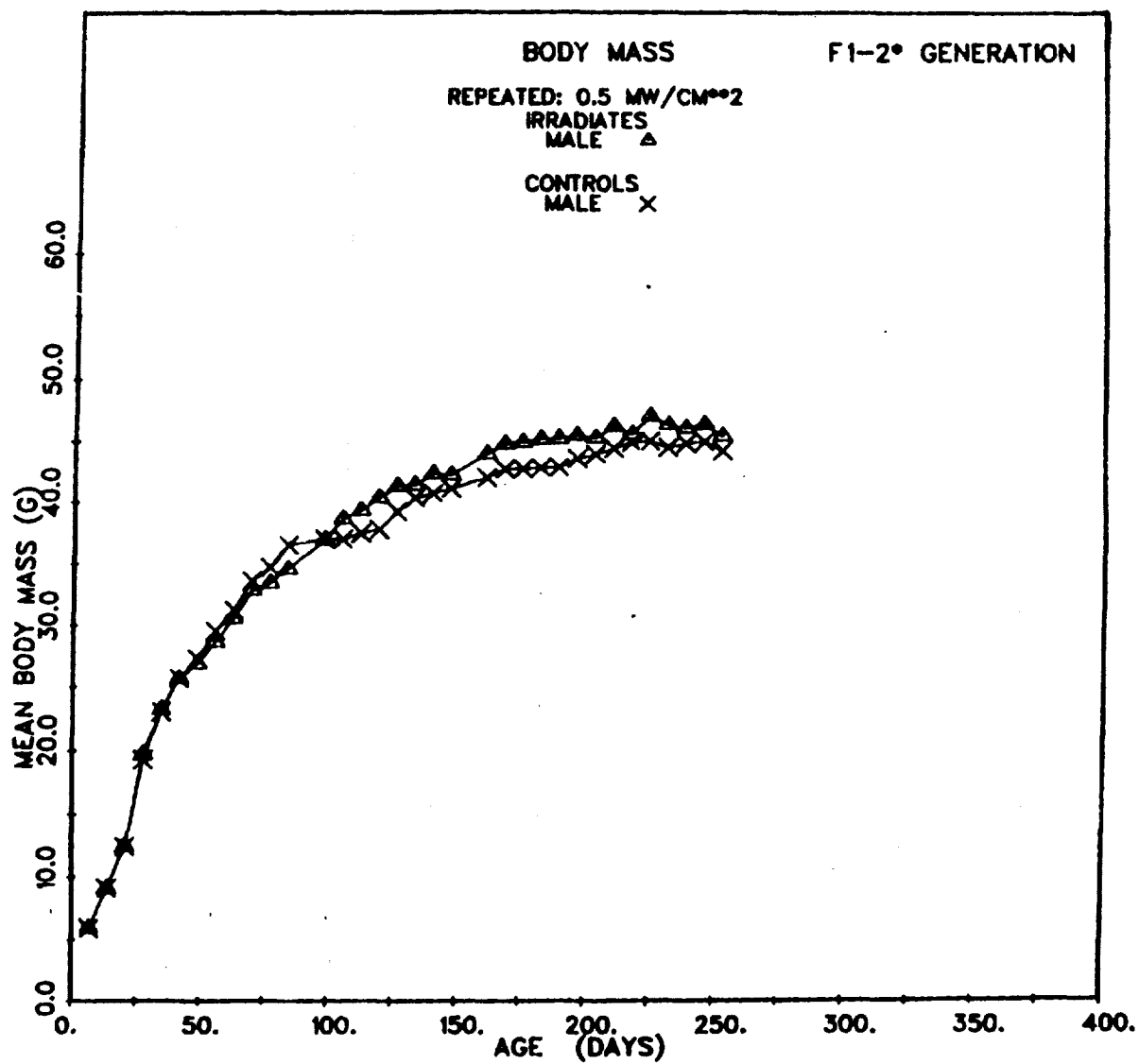


Figure 12. Mean body mass of RF- and sham-irradiated F1-2 male mice.

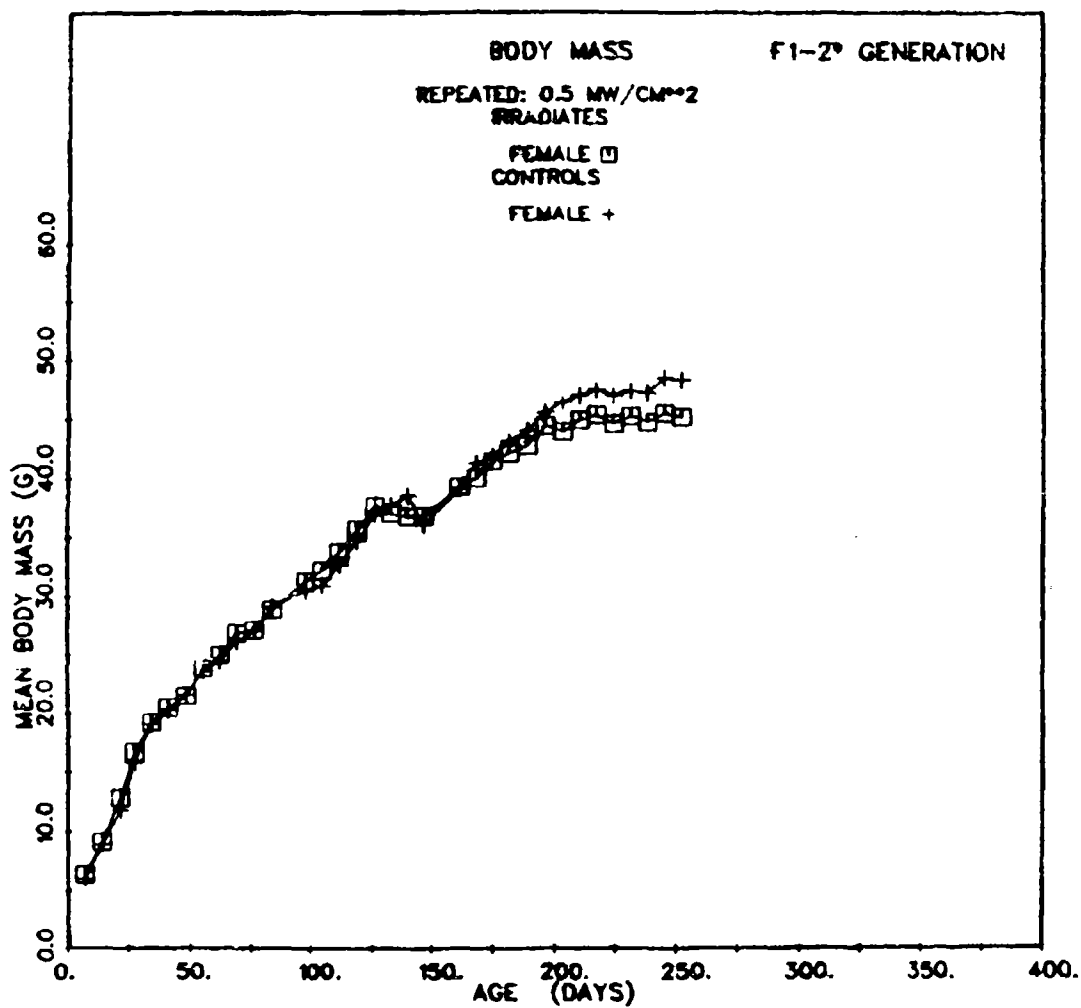


Figure 13. Mean body mass of RF- and sham-irradiated F1-2 female mice.

less than the sham exposed ones, whereas experiment F4-2 shown in Figures 10 and 11 the exposed male body masses were higher than the sham after the first several weeks of life. The difference between the gains in body masses exhibited by the animals in F4-2 experiments was not statistically significant ($p>0.05$). Up to 250 days of age, animals of the F1-2 experiment exhibited no difference in growth (Figures 12 and 13). Details of the statistical analysis are given in Appendix A.

Hematology

Values of blood cell counts, packed cell volume (hematocrit) and hemoglobin in RF-exposed animals which had blood withdrawn from the tail vessels at different ages, in comparison with those from the sham exposed animals, are shown in Figures 14 to 31. No significant changes ($p>0.05$) were noted in the numbers of erythrocyte, leukocyte, lymphocytes or segmented neutrophils, and in the values of hematocrit or hemoglobin.

Statistical summaries of the blood parameters for each experiment are presented in Appendix B.

Pathology

Histopathological and necropsy evaluation revealed several neoplastic and non-neoplastic lesions that were consistently seen in all test groups, controls and colony stock animals. Most lesion types documented were apparently related to aging and principally seen after 400 days of age. Non-neoplastic lesions noted in the study groups are listed in Tables 3 and 4, for male and female mice, respectively.

The non-neoplastic condition of pancreatic islet hyperplasia (endocrine pancreas) was commonly seen with equal frequency in male

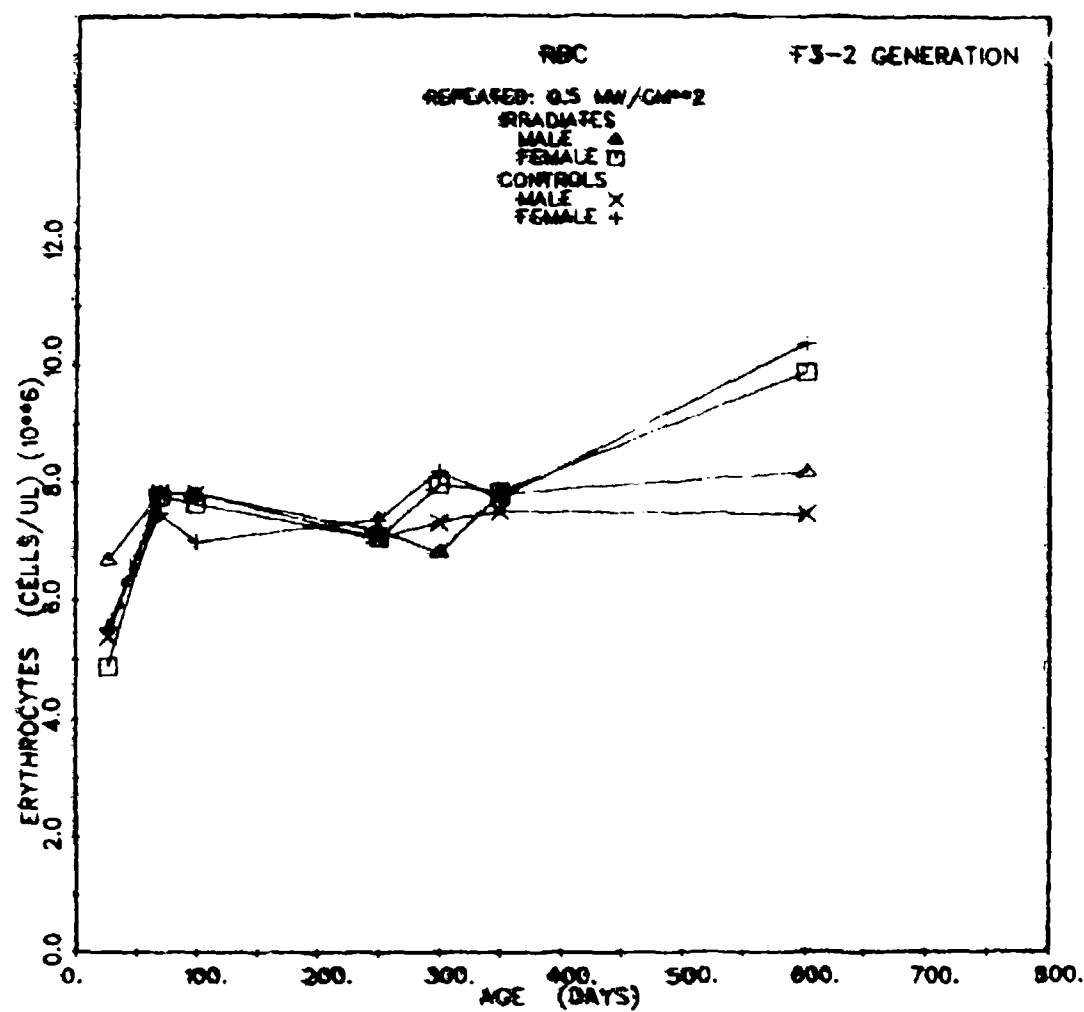


Figure 14. Red-blood-cell counts for sham-irradiated and irradiated F3-2 animals as a function of age.

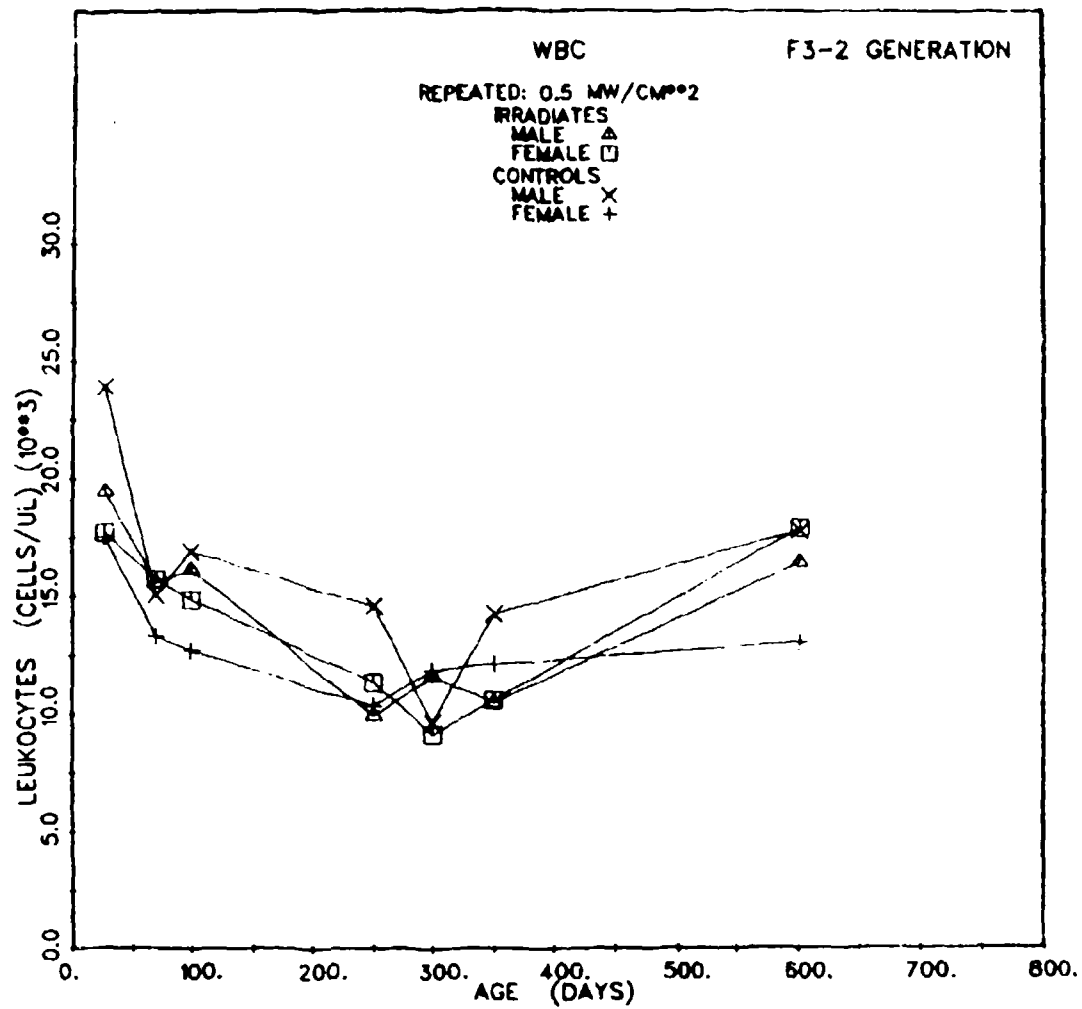


Figure 15. White-blood-cell counts for sham-irradiated and irradiated F3-2 animals as a function of age.

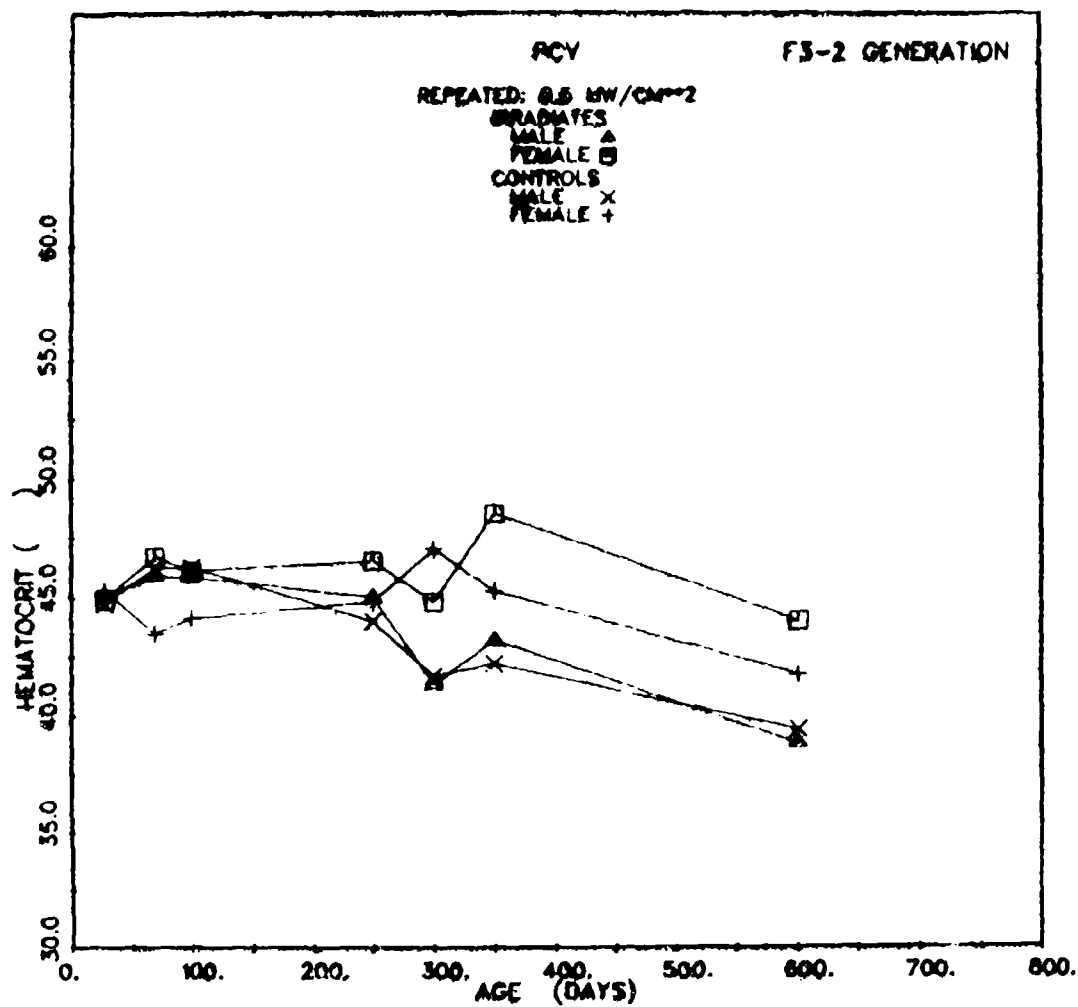


Figure 16. Packed cell volume for sham-irradiated and irradiated animals.

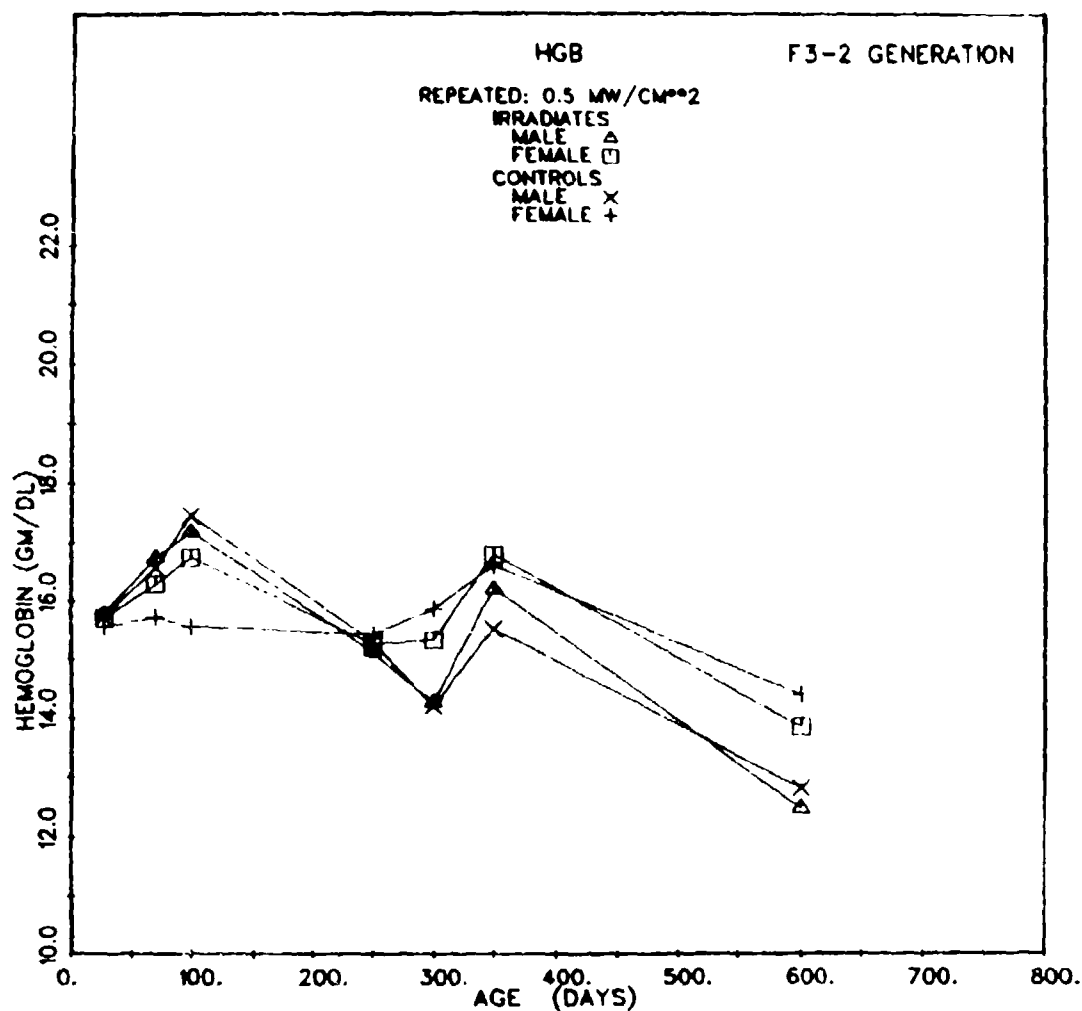


Figure 17. Hemoglobin for sham-irradiated and irradiated animals.

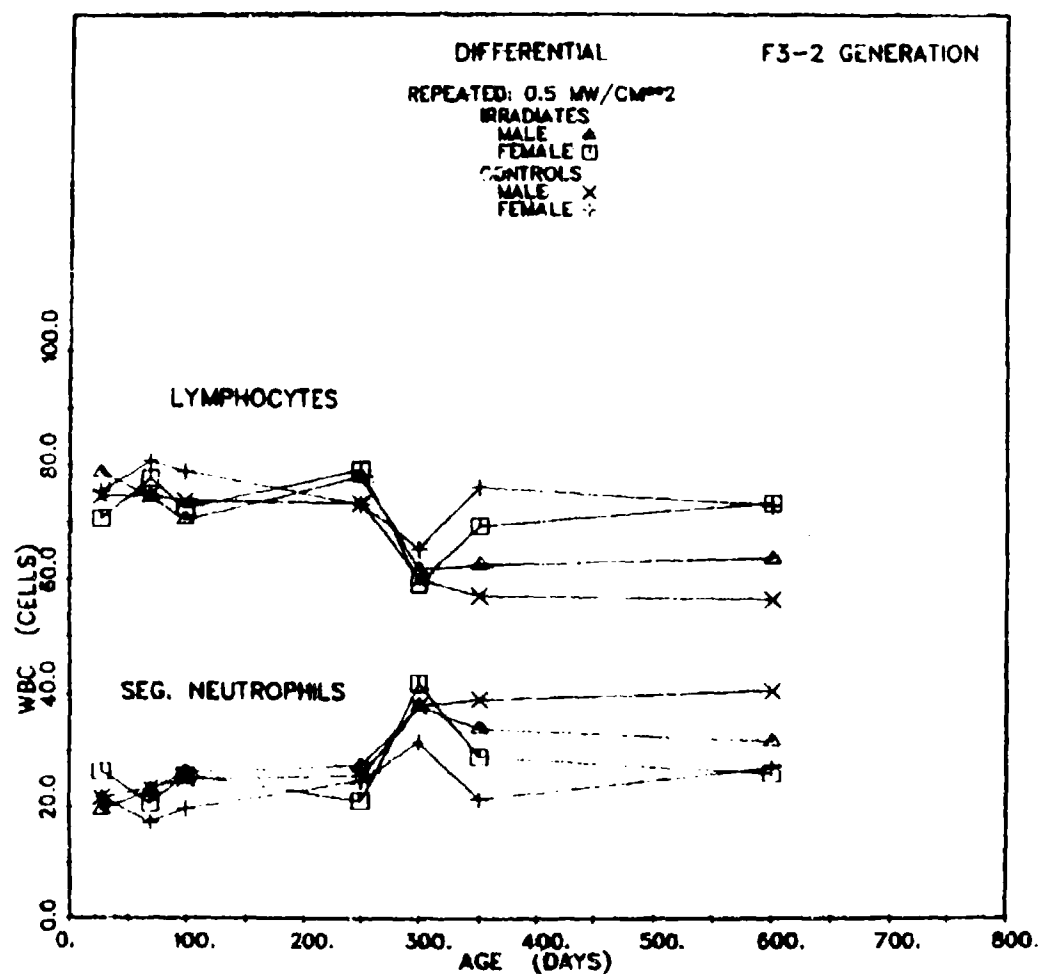


Figure 18. Lymphocyte counts for sham-irradiated and irradiated F3-2 mice as a function of age.

Figure 19. Segmented neutrophil counts for sham-irradiated and irradiated F3-2 mice as a function of age.

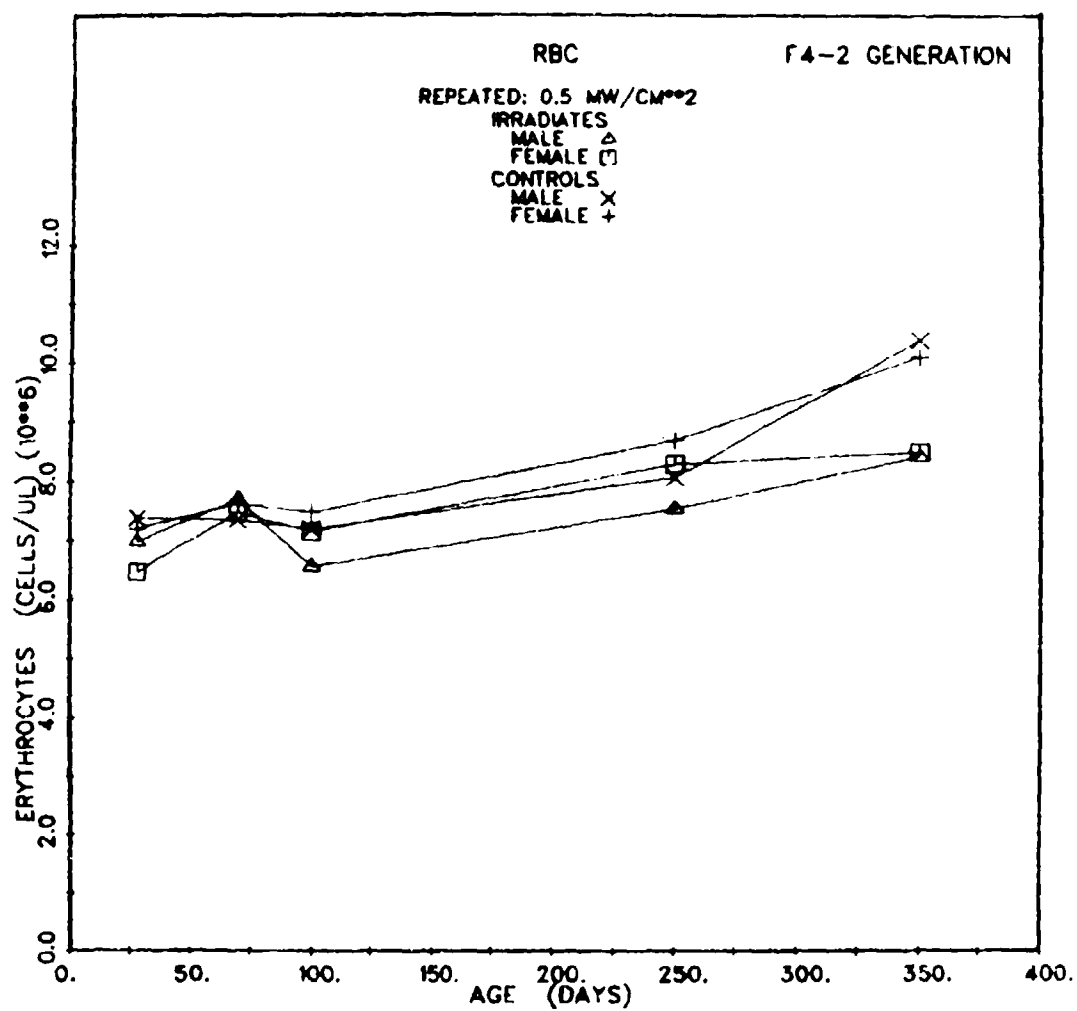


Figure 20. Red-blood-cell counts for RF- and sham-irradiated F4-2 mice as a function of age.

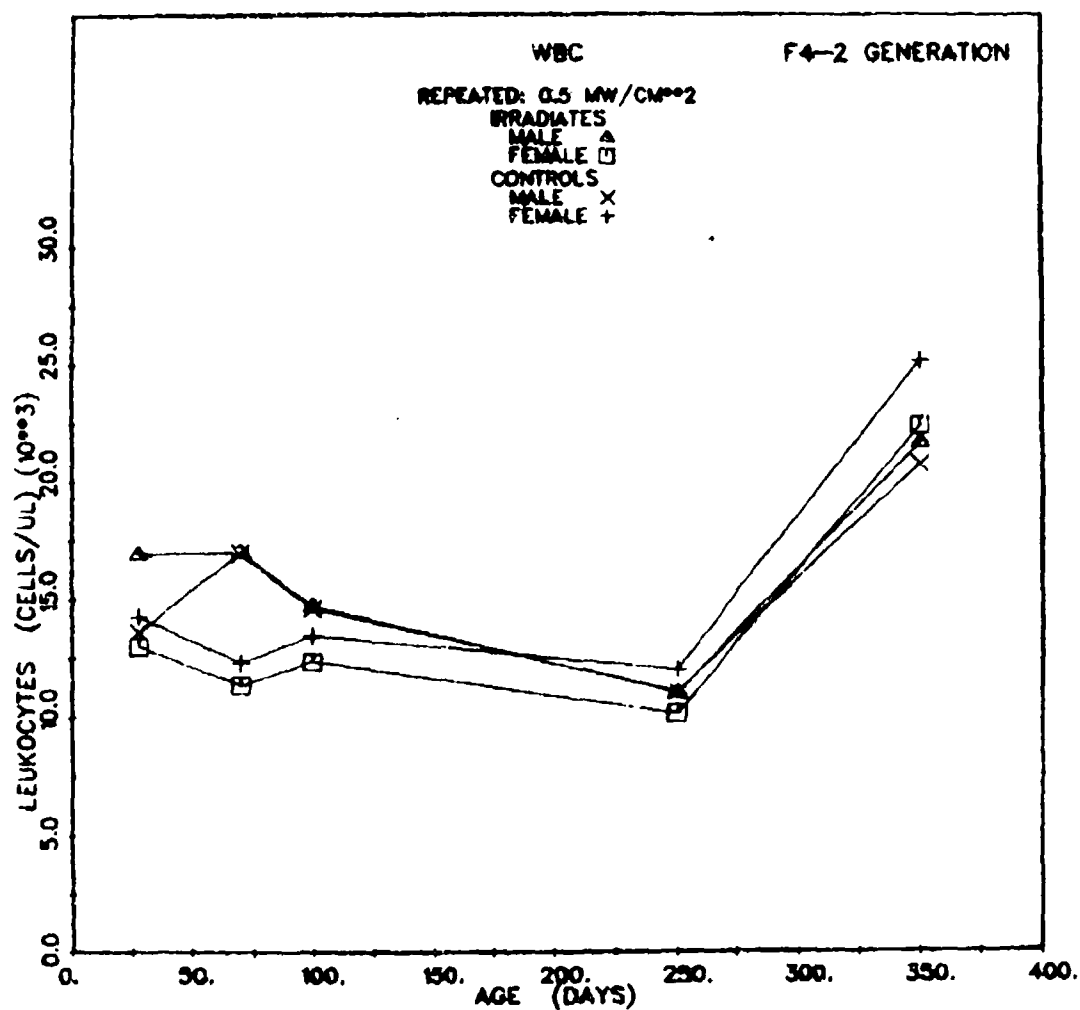


Figure 21. White-blood-cell counts for RF- and sham-irradiated F4-2 mice as a function of age.

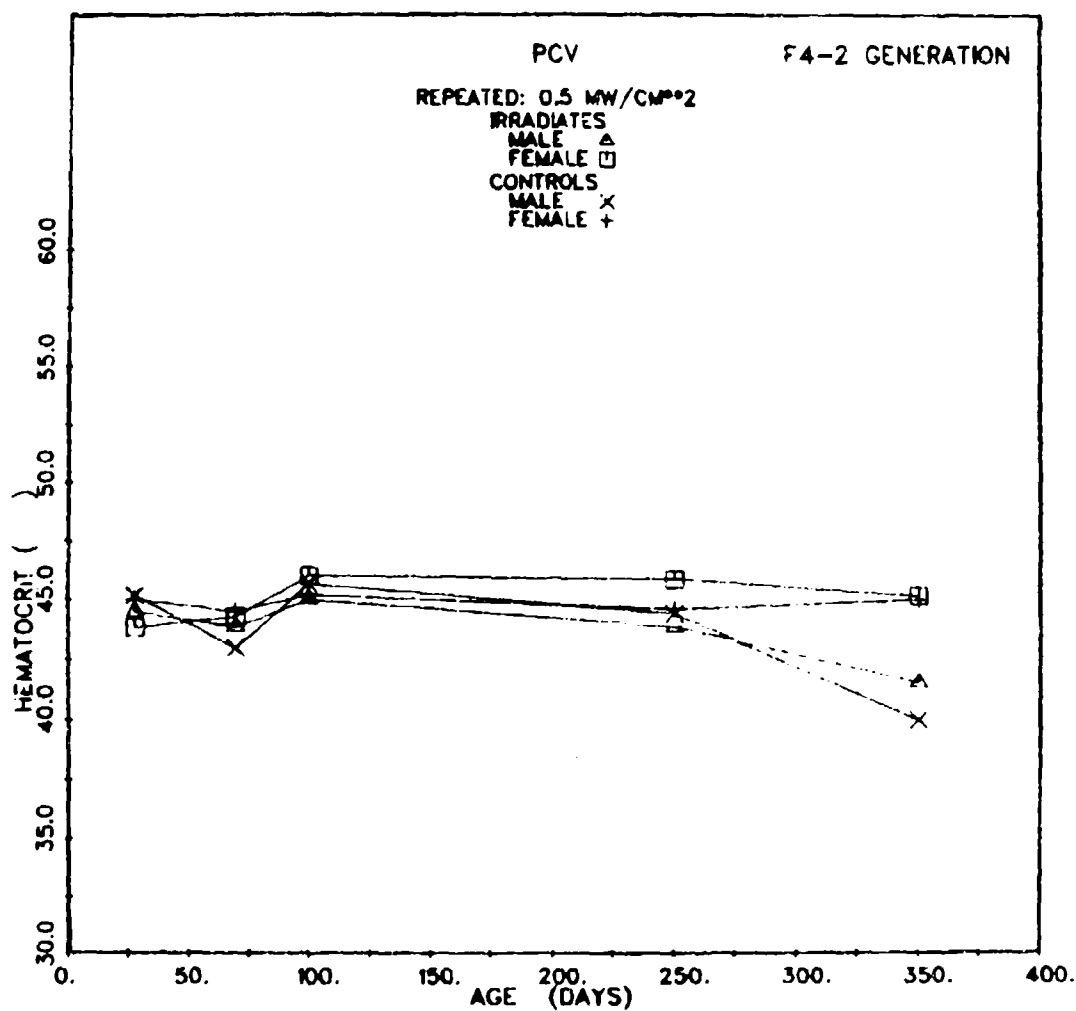


Figure 22. Packed cell volume for RF- and sham-irradiated F4-2 mice as a function of age.

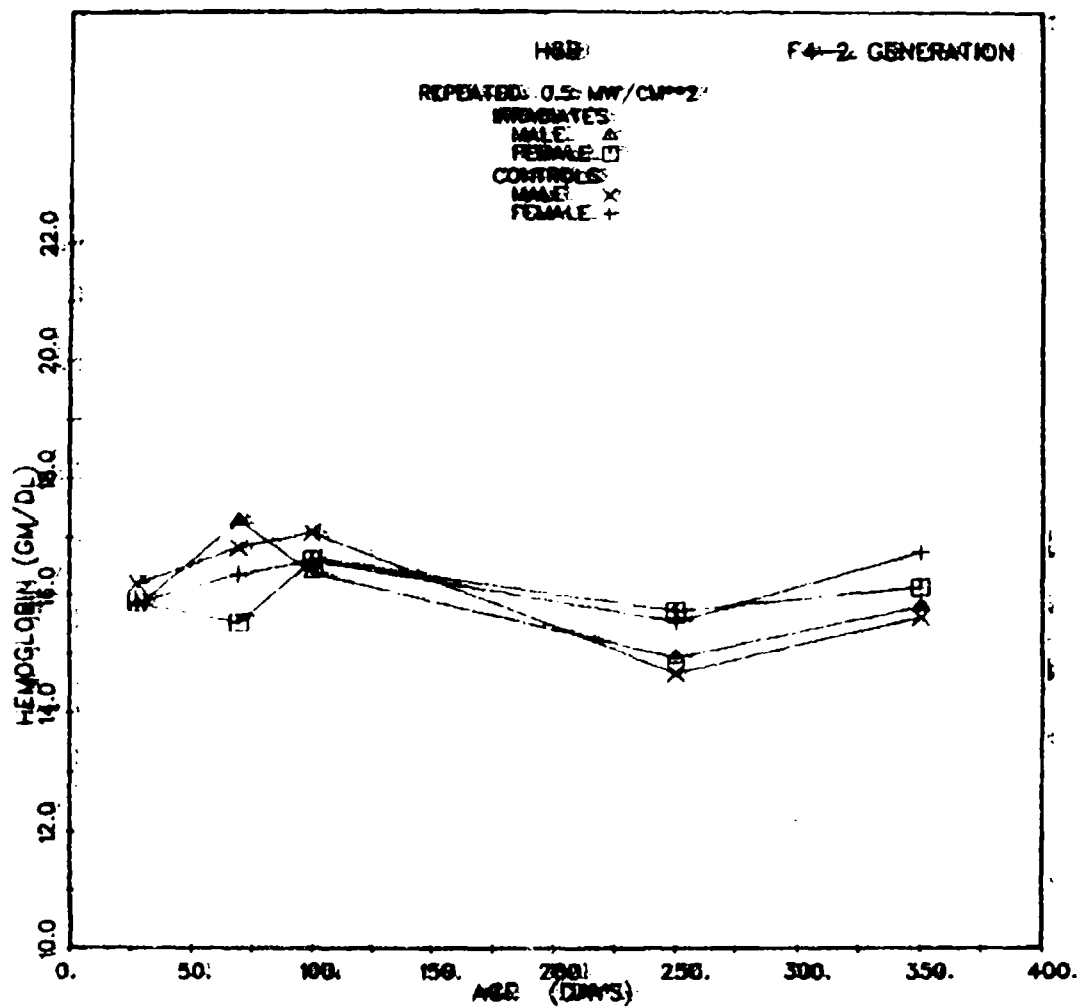


Figure 23. Hemoglobin for RF- and sham-irradiated F4-2 mice as a function of age.

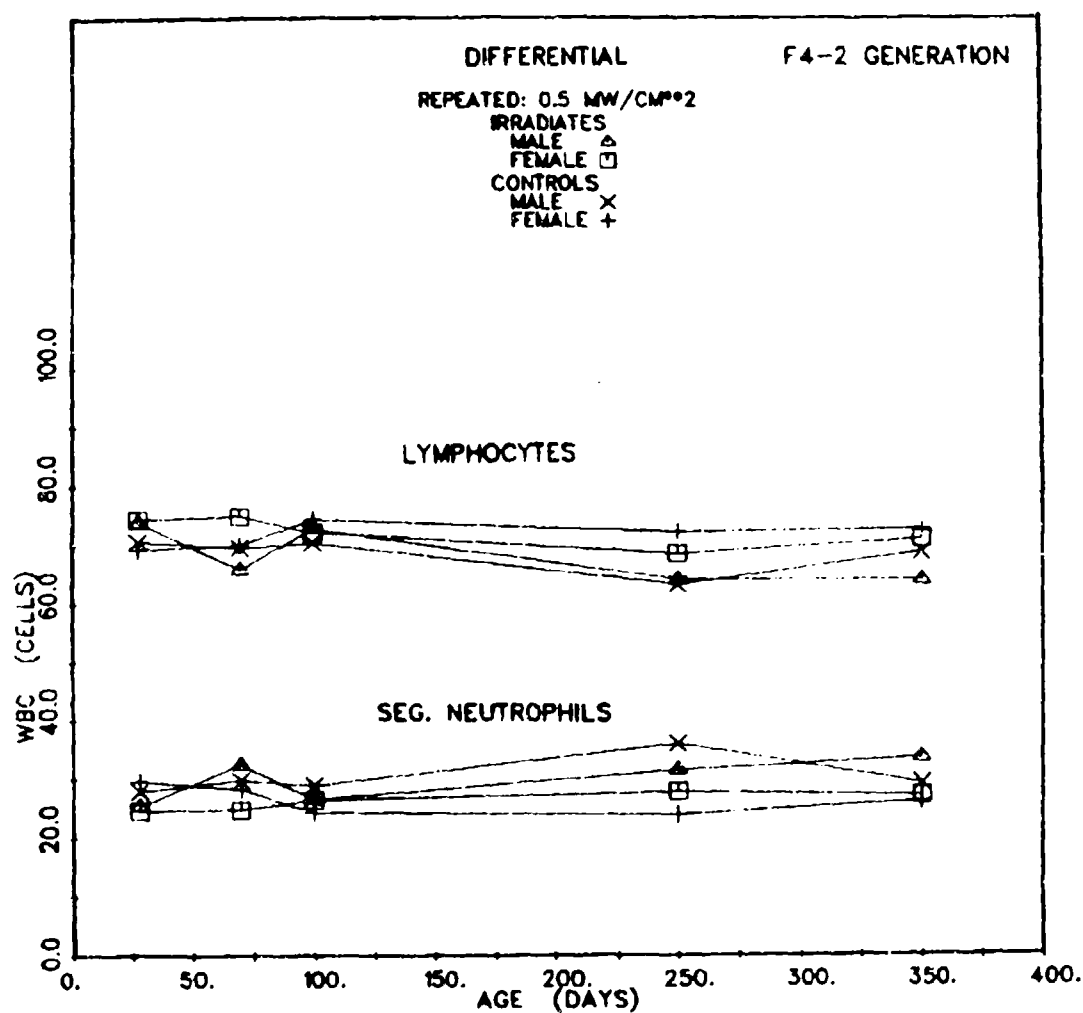


Figure 24. Lymphocyte counts for RF- and sham-irradiated F4-2 mice as a function of age.

Figure 25. Segmented neutrophil counts for RF- and sham-irradiated F4-2 mice as a function of age.

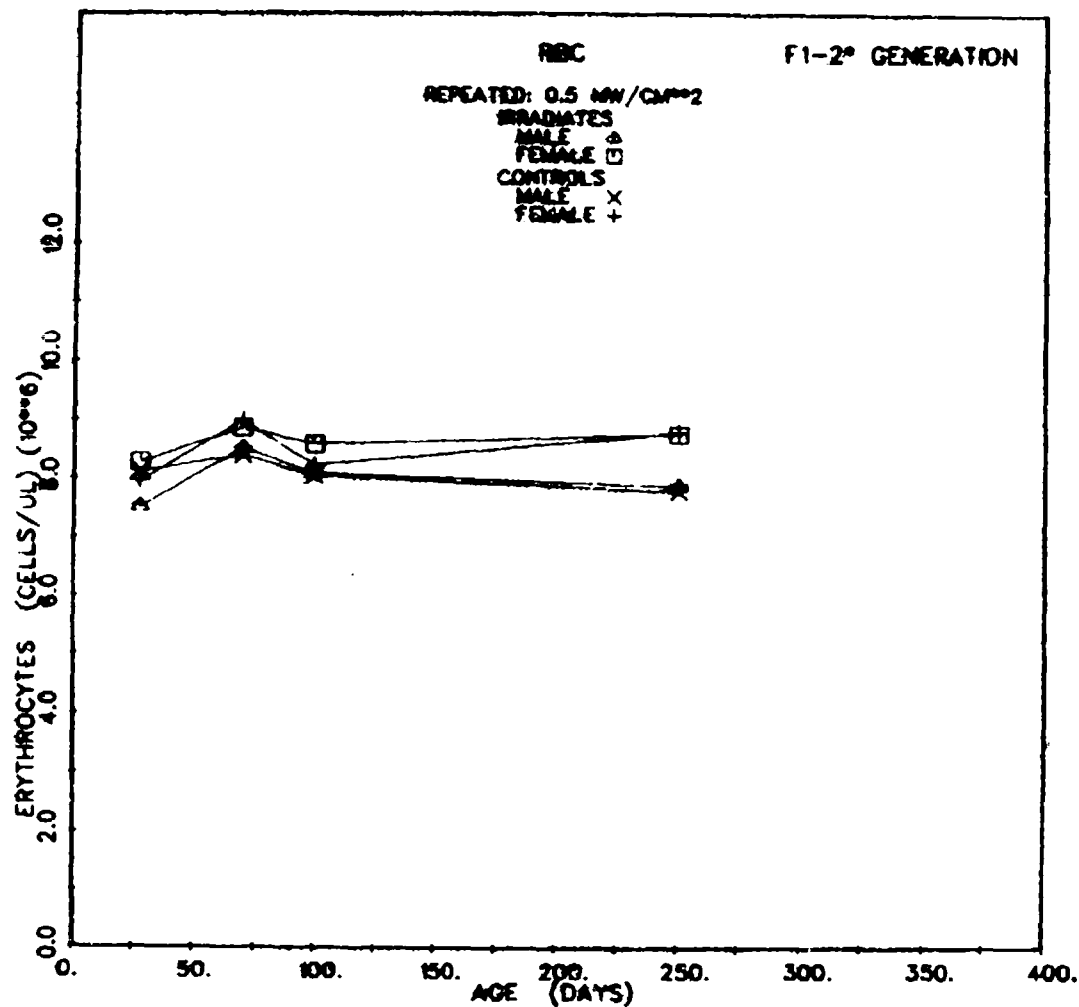


Figure 26. Red-blood-cells of RF- and sham-irradiated F1-2 mice.

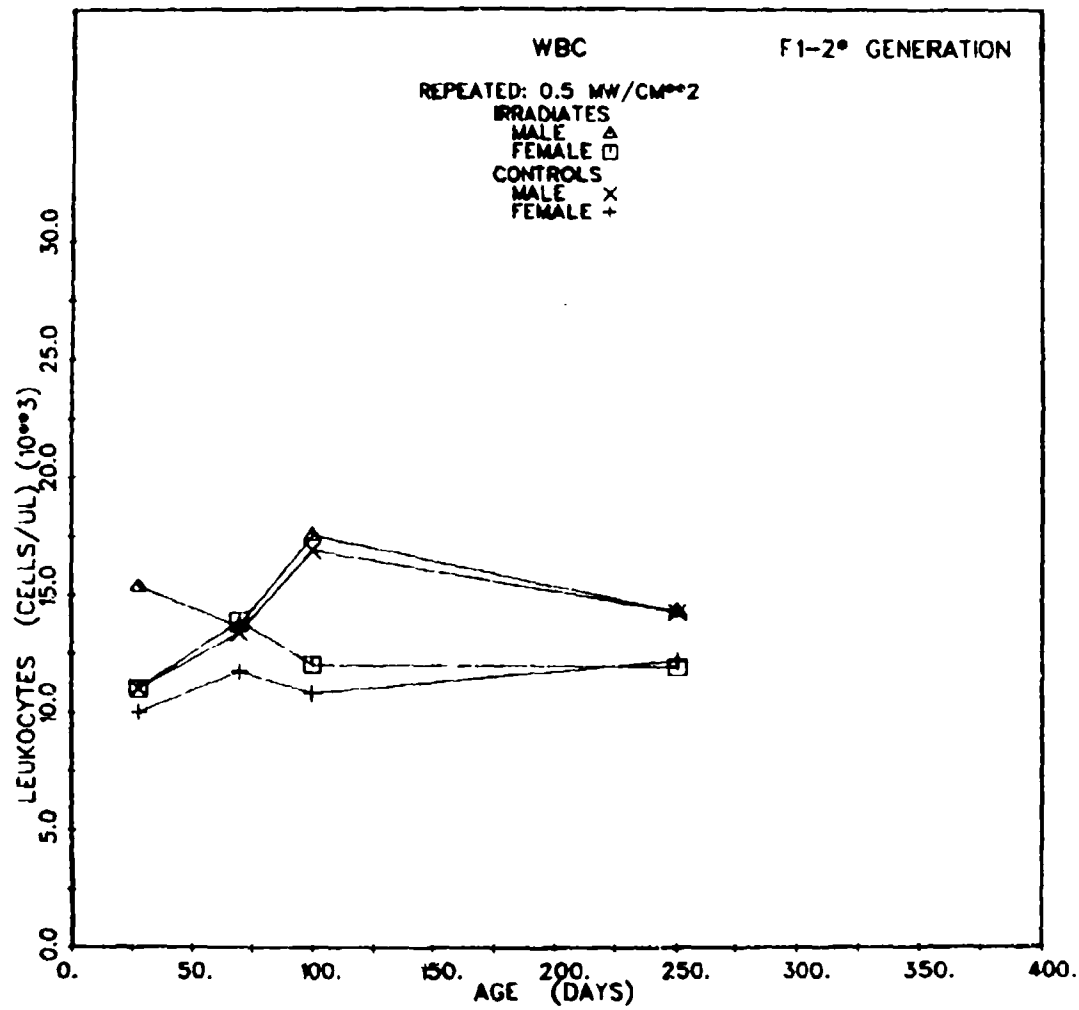


Figure 27. White-blood-cells of RF- and sham-irradiated F1-2 mice.

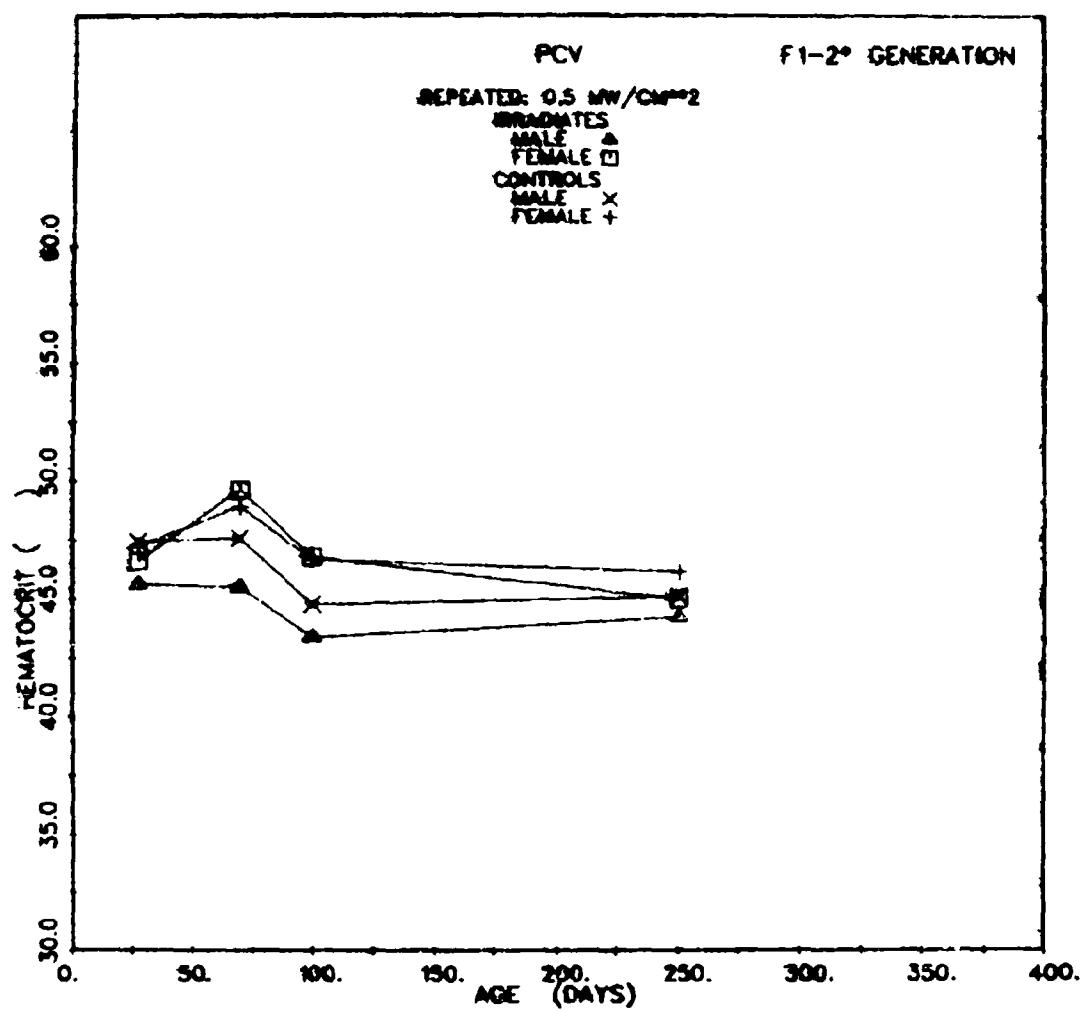


Figure 28. Packed cell volume of RF- and sham-irradiated F1-2 mice.

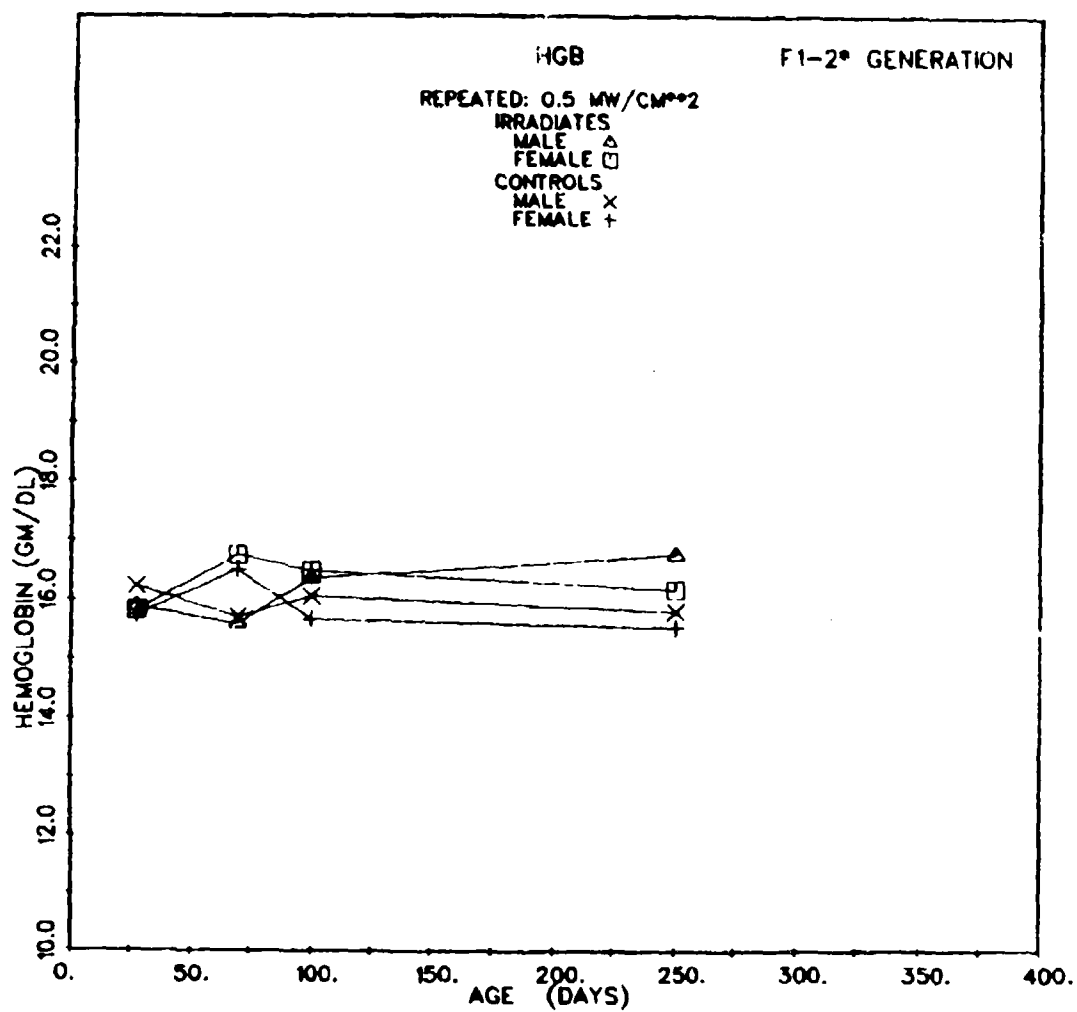


Figure 29. Hemoglobin of RF- and sham-irradiated F1-2 mice.

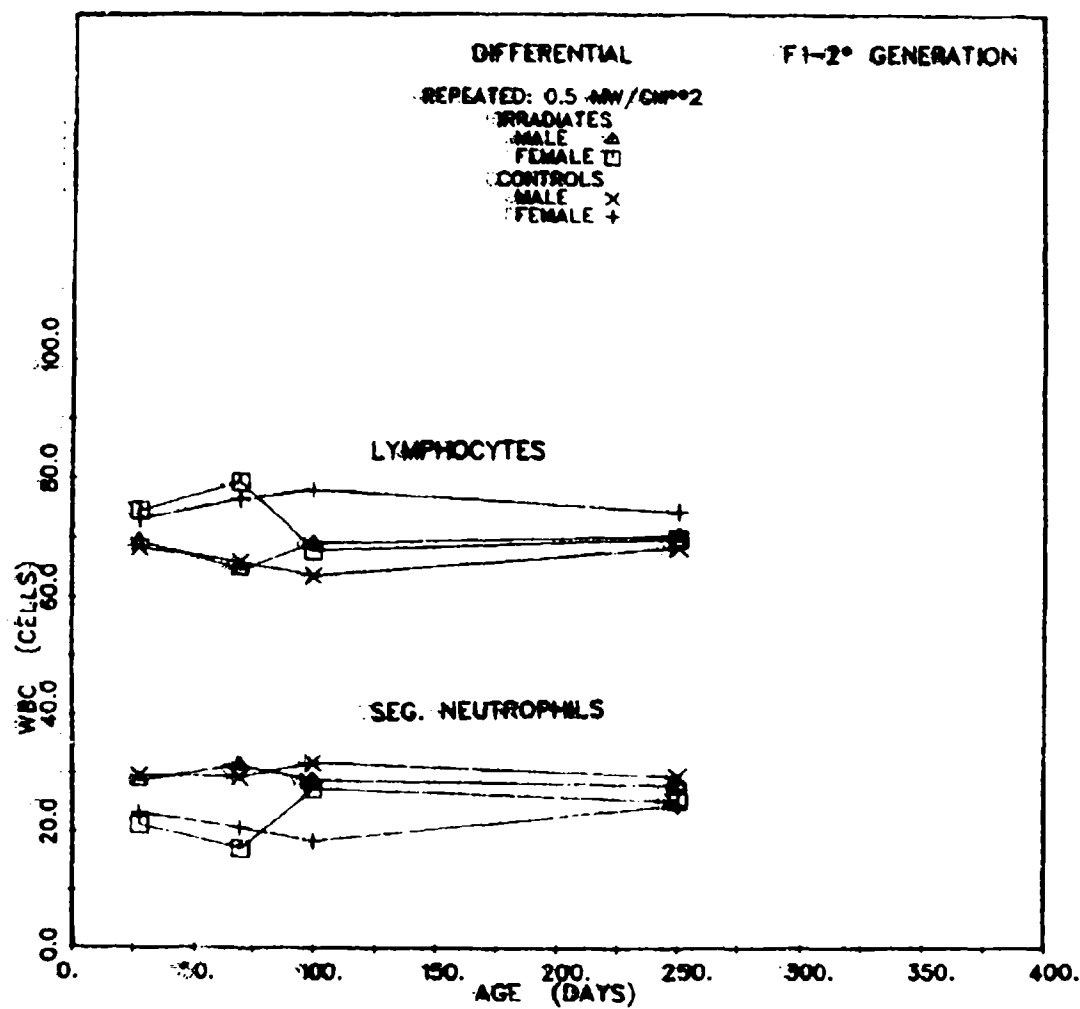


Figure 30. Lymphocytes of RF- and sham-irradiated F1-2 mice.

Figure 31. Segmented neutrophils of RF- sham-irradiated F1-2 mice.

Table 3 Summary of Non-neoplastic Lesions in Male Mice
(x/y indicates lesion noted vs. number of animals examined)

Lesion	RF-Exposed	Controls	Stock Animals
Kidney Scarring		2/22	1/37
Urolithiasis		1/22	2/37
Pancreatic islet hyperplasia	3/20	4/22	

Table 4 Summary of Non-neoplastic Lesions in Female Mice
(x/y indicates lesion noted vs. number of animals examined)

Lesion	RF-Exposed	Controls	Stock Animals
Salivary gland duct obstruction	1/20		
Pancreatic islet hyperplasia	5/20		4/31
Cystic ovary	4/20	4/17	3/31
Uterine endometrial hyperplasia with mucometra or hydrometra	5/20	4/17	1/31

and female mice. It was noted especially after 500 days of age in 14 percent of the animals. Females revealed cystic ovaries in 15 percent of the animals. Uterine enlargement with either mucometra or hydrometra was generally present in females exhibiting cystic ovaries. The uterine enlargement resulted from endometrial hyperplasia. The other lesions listed in Tables 3 and 4 occurred too infrequently to establish any reliable prevalence and can best be described as occasional findings (generally 0-10 percent).

There was no significant difference in the incidence of any given non-neoplastic lesion among all the animal groups listed in Tables 3 and 4, except for the pancreatic islet hyperplasia between control and stock animals ($\chi^2 = 4.63$; at 1 df, $p < 0.05$). If the total number of non-neoplastic lesions for each sex is compared however, the incidence of non-neoplastic lesions in RF exposed male animals was significantly higher (60%) than that (26%) of the stock animals ($\chi^2 = 4.61$; at 1 df, $p < 0.05$). It should be noted that the difference between RF and sham exposed mice was not significant.

One neoplasm type, the hepatoma, was seen with high frequency in animals 400 days and older of both sexes (Tables 5 and 6). All nodular lesions or tumors arising from liver parenchyma cells were classified for compilation purposes as hepatomas. No attempt was made to separately classify the lesions as nodular hyperplasia, non-malignant hepatoma and hepatocellular carcinoma. These lesions may represent stages of hepatocyte derived neoplasms (Solt and Farber, 1976; Squire and Levitt, 1975). The prevalence appears to be 30 percent regardless of sex or animal group. The small number

Table 5 Summary of Neoplasms in Male Mice
(x/y indicates neoplasm diagnosed vs. number of animals exposed)

Neoplasm	RF-Exposed	Controls	Stock Animals
Hepatoma	8/20	9/22	16/37
Hemangio-endothelioma (benign)		1/22	
Lymphoma (thymic or splenic)	1/20		
Pulmonary Neoplasm (alveologenic)		1/22	4/37
Harderian gland adenoma			1/37

Table 6 Summary of Neoplasms in Female Mice
(x/y indicates neoplasm diagnosed vs. number of animals examined)

Neoplasm	RF-Exposed	Control	Stock Animals
Hepatoma	7/20	2/17	3/31
Lipoma (mesenteric)	1/20		
Pulmonary neoplasm (alveologenic)		1/17	
Harderian gland			2/31
Fibrosarcoma			1/31
Mammary gland (adenoma or adenocarcinoma)			1/31
Ovarian neoplasm			1/31
Uterine leiomyoma		1/17	
Undifferentiated carcinoma, suspect Thyroid origin		1/17	1/31

of animals which was evaluated by necropsy however will not permit a statement of exact hepatoma prevalence in this substrain.

The other types of neoplasms detected occurred infrequently with a prevalence of 0-10 percent. There was no indication that a difference exists in neoplasm prevalence, time of onset, stage of differentiation and biologic behavior when sham-and RF-exposed mice were compared.

Necropsy and histopathology revealed no evidence of RF-induced change in those animals selected for necropsy prior to 300 days of age. Idiopathic partial alopecia was commonly seen with equal frequency in male and female mice of all groups beginning at 150 days of age. The animals were free of ectoparasites.

It is recognized that the sample size for necropsy evaluation and histopathological examination was small. The observations primarily served a quality control function. It is also noted that there is limited pathology data available in the literature concerning lesion incidence and prevalence during the life span of C3H/StCr (Benirschki, et al., 1978; Cotchin and Roe, 1967; Green, 1968; Jones, 1976; Murphy, 1966; Ribelin and McCoy, 1971; Robinson, et al., 1974; Staats, 1972; Vesselinovitch, et al., 1978; Williams, et al., 1977).

General Clinical Observations

The sham and RF exposed animals remained remarkable free of spontaneous infectious agent caused disease. No clinically recognizable contagious infectious disease occurred in the colony during the study. Except for one instance of bacterial pneumonia in a single control mouse, infections were noted only secondary to

other primary causes resulting in either injury or necrosis of tissue. Microscopic examination of stained organ and tissue sections did not show evidence of latent or subclinical infections.

Clinical observations and necropsy evaluation detected several neoplastic and non-neoplastic lesions that were consistently seen in all test groups, controls and colony stock animals. Lesions did not differ perceptibly among animal groups in age onset, incidence, prevalence, severity or extent of involvement and general biologic effect.

It is significant to note that no evidence of immunosuppression occurred because spontaneous primary infection was a rare event. Hematopoietic and lymphoreticular system neoplasms occurred infrequently; immunosuppression is known to increase the likelihood of neoplastic proliferation of these tissues. During the period of the study no cataracts were noted. Fertility differences among irradiated and control animals were not detected. Body growth patterns did not differ among sham and RF exposed animals.

VI. SUMMARY

The effect of repeated exposure of C3H mice to radio frequency (RF) energy (148 MHz) was investigated. The animals were irradiated to 0.5 mW/cm^2 (63.25 V/m) in a TEM exposure chamber. They were irradiated for one hour a day, five days a week, beginning on the 4th to the 7th day postpartum, for 10 weeks. Both RF and sham irradiated animals were weighed daily from the beginning of irradiation treatments for 10 weeks, and weekly thereafter. Blood was drawn from tail vessels of the mice for analysis at 28, 70, 100, 250, 300, 360 and 600 days of age. Necropsy and hispathological

examinations were performed on randomly selected animals from each group.

The results indicated that the formed elements in the blood were not affected by the exposure. The means of body mass of the irradiated and control animals were comparable no significant differences in the lesion onset, incidence, prevalence, extent, or type were observed when repeated RF-exposed animals were compared with sham-control groups. The study thus suggested that at the exposure levels studied biological effects do not occur or are not detectable from the parameters used.

VII. REFERENCES

1. Addington, C.H., F. Fischer, R. Neubauer, C. Osborne, Y. Sarkees, and G. Swartz, (1961), Biological effects of microwave energy at 200 mc, in Biological Effects of Microwave Radiation, edited by M.F. Peyton, Plenum, New York.
2. Bawin, S.M., R.J. Gavallas - Medici and W.R. Adey, (1973), Effects of modulated VHF fields on specific brain rhythms in cats. Brain Res. 58, 365-384.
3. Bawin, S.M., L.K. Kaczmarek and W.V. Adey (1975), Effects of modulated VHF fields on the central nervous system, Annals N.Y. Acad. Sci., 267; 74-81.
4. Benirschke, K., Garner, F.M., and Jones, T.C., Pathology of Laboratory Animals, Vols. I and II. Springer - Verlag, N.Y., 1978.
5. Cotchin, E., and Roe, F., Pathology of Laboratory Rats and Mice - Blackwell Scientific Publications, Oxford and Edinburgh, 1967.
6. Crawford, M.L., (1974), Generation of standard EM fields using TEM transmission cells, IEEE Trans. Electromagnetic Comp., Vol. 16, 189-195.
7. Durney, C.H., C.C. Johnson, and H. Massoudi, (1975), Long-wavelength analysis of plane wave irradiation of a prolate spheroid model of man, IEEE Trans. Microwave Theory Tech., Vol. 23, 246-253.
8. Durney, C.H., C. Johnson, P. Barber, H. Massoudi, M. Iskander, J. Lords, D. Ryser, S. Allen and J. Mitchell, (1978). Radio Frequency Dosimetry Handbook, Depts. Electrical Engg. and Bioengg., Univ. Utah, Salt Lake City, Utah.
9. Green, E.L., Handbook on Genetically Standardized Jax Mice, 2nd ed., Bar Harbor Times Publishing Co., Bar Harbor, Maine 1968.
10. Jones, S.R., Mouse, Naturally Occurring Neoplastic Diseases in Vol. III, CRC Handbook of Laboratory Animal Science, Melby, E.C., and Altman, H.H., Eds., CRC Press, Inc., Cleveland, 221-225, 1976.
11. Lin, J.C., A.W. Guy and C.C. Johnson, (1973), Power deposition in a spherical model of man exposed to 1-20 MHz electromagnetic fields, IEEE Trans. Microwave Theory Tech., Vol. 21, 791-797.
12. Lin, J.C., H.J. Bassen and C.L. Wu, (1977), Perturbation effects of animal restraining materials on microwave exposure, IEEE Tran. Biomed. Engg., Vol. 24, 80-83.

13. Mickey, G.H., J.H. Adler and E. Snyder, (1975), Non-thermal hazards of exposure to radio frequency fields, Final Report, The New England Institute, Ridgefield, Connecticut.
14. Murphy, E.D., Characteristic Tumors, Chapt. 27, in Biology of the Laboratory Mouse, 2nd ed., Green, E.L., Ed., McGraw-Hill, N.Y., 1966.
15. Ribelin, W.E. and McCoy, J.R., The Pathology of Laboratory Animals, Charles C. Thomas, Springfield, 2nd printing, 1971.
16. Robinson, F.R., Brown, R.J. and Casey, H.W., References on Naturally Occurring Neoplasms in Animals, Registry of Veterinary Pathology, Armed Forces Institute of Pathology, Washington, D.C., p. 103, 1974.
17. Squire, R.A., and Levitt, M.H., Report of a Workshop on: Classification of Specific Hepatocellular Lesions in Rats. Cancer Research 35: 3214-3215, 1975.
18. Solt, D., and Farber, E., New Principle for the Analysis of Chemical Carcinogenesis, Nature 236: 702-703, Oct., 1976.
19. Staats, J., Standardized Nomenclature for Inbred Strains of Mice: Fifth Listing, Cancer Research 32, (8): 1609-1646, 1972.
20. Tolgskaya, M.S. and Z.V. Gordon, (1973), Pathological Effects of Radio Wave, Consultants Bureau, N.Y., p. 39-40 and 119-
21. Vesselinovitch, S.D., Mihailovich, N., and Rao, K.V.N Morphology and Metastatic Nature of Induced Hepatic Nodular Lesions in C57BLXC3H F₁ Mice. Cancer Research 38: 2003-2010, July, 1978.
22. Williams, G.M., Klaiber, M., Farber, E., Differences in Growth of Transplants of Liver, Liver Hyperplastic Nodules, and Hepatocellular Carcinomas in the Mammary Fat Pad. Am. J. Pathol, 89: 379-390, 1977.

Appendix A
Statistical Summary of Body Masses

Table A.1 Body masses for F3-2 male mice.

T-TEST FOR F3-2 MALES

T - T E S T													
VARIABLE		NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F VALUE	2-TAIL PROB.	POOLED VARIANCE ESTIMATE		T VALUE	DEGREES OF FREEDOM	SEPARATE VARIANCE ESTIMATE	
WGT10 1-CONTROL 2-EXPOSURE AGE:10 DAYS													
GROUP 1	13	7.7308	1.410	0.391	1.00	1.000	1	1	-0.36	23	0.723	1	0.723
GROUP 2	12	7.9333	1.409	0.407			1	1				1	
WGT11 1-CONTROL 2-EXPOSURE AGE:11 DAYS													
GROUP 1	13	8.4846	1.300	0.361	1.09	0.875	1	1	0.27	23	0.791	1	0.791
GROUP 2	12	8.3417	1.359	0.392			1	1				1	
WGT12 1-CONTROL 2-EXPOSURE AGE:12 DAYS													
GROUP 1	13	9.0846	1.208	0.335	1.21	0.744	1	1	0.66	23	0.516	1	0.518
GROUP 2	12	8.7500	1.330	0.384			1	1				1	
WGT13 1-CONTROL 2-EXPOSURE AGE:13 DAYS													
GROUP 1	13	9.7077	1.304	0.362	1.20	0.757	1	1	0.53	23	0.599	1	0.601
GROUP 2	12	9.4167	1.428	0.412			1	1				1	
WGT14 1-CONTROL 2-EXPOSURE AGE:14 DAYS													
GROUP 1	13	9.6615	1.122	0.311	1.55	0.462	1	1	0.57	23	0.576	1	0.580
GROUP 2	12	9.3750	1.397	0.403			1	1				1	
WGT17 1-CONTROL 2-EXPOSURE AGE:17 DAYS													
GROUP 1	11	11.7727	1.315	0.396	1.47	0.550	1	1	0.74	21	0.465	1	0.461
GROUP 2	12	11.3167	1.595	0.461			1	1				1	
WGT18 1-CONTROL 2-EXPOSURE AGE:18 DAYS													
GROUP 1	12	11.8167	1.345	0.388	1.80	0.343	1	1	0.50	22	0.622	1	0.623
GROUP 2	12	11.4917	1.806	0.521			1	1				1	

Table A.1 (continued)

VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F VALUE	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.
UCT19	1-CONTROL	2-EXPOSURE	AGE:119 DAYS									
GROUP 1	12	12.2750	1.298	0.375	2.00	0.264	0.64	22	0.528	0.64	19.79	0.528
GROUP 2	12	11.8583	1.837	0.530								
UCT20	1-CONTROL	2-EXPOSURE	AGE:120 DAYS									
GROUP 1	12	12.7667	1.146	0.331	2.49	0.145	0.70	22	0.491	0.70	18.60	0.492
GROUP 2	12	12.3333	1.809	0.522								
UCT21	1-CONTROL	2-EXPOSURE	AGE:121 DAYS									
GROUP 1	12	13.5917	1.259	0.363	2.17	0.214	0.63	22	0.535	0.63	19.36	0.536
GROUP 2	12	13.1833	1.855	0.535								
UCT24	1-CONTROL	2-EXPOSURE	AGE:24 DAYS									
GROUP 1	12	16.2500	1.536	0.443	2.08	0.242	0.46	22	0.649	0.46	19.60	0.650
GROUP 2	12	15.8917	2.213	0.639								
UCT25	GROUP 1	12	16.9417	1.609	0.485							
GROUP 2	12	16.5917	2.386	0.689	2.20	0.207	0.42	22	0.678	0.42	19.29	0.678
UCT26	1-CONTROL	2-EXPOSURE	AGE:125 DAYS									
GROUP 1	12	17.5750	1.521	0.439	2.03	0.254	0.90	22	0.376	0.90	19.71	0.377
GROUP 2	12	16.8833	2.170	0.626								

Table A.1 (continued)

T - T E S T										
VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	T - TEST		POOLED VARIANCE ESTIMATE		SEPARATE VARIANCE ESTIMATE	
					F VALUE	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	T VALUE	DEGREES OF FREEDOM

UGT27	1-CONTROL	2-EXPOSURE	AGE:27 DAYS							
GROUP 1	12	18.5000	1.848	0.534	1.44	0.554	0.21	22	0.836	0.836
GROUP 2	12	18.3250	2.220	0.641						

UGT28	1-CONTROL	2-EXPOSURE	AGE:28 DAYS							
GROUP 1	12	19.5417	1.828	0.528	1.30	0.674	0.21	22	0.837	0.837
GROUP 2	12	19.3750	2.081	0.601						

UGT31	1-CONTROL	2-EXPOSURE	AGE:31 DAYS							
GROUP 1	11	21.3000	1.570	0.473	1.55	0.499	0.73	20	0.472	0.472
GROUP 2	11	20.7454	1.956	0.590						

UGT32	1-CONTROL	2-EXPOSURE	AGE:32 DAYS							
GROUP 1	11	21.2636	1.791	0.540	1.05	0.941	0.16	20	0.877	0.877
GROUP 2	11	21.1454	1.749	0.527						

UGT33	1-CONTROL	2-EXPOSURE	AGE:33 DAYS							
GROUP 1	11	21.6454	1.468	0.443	1.15	0.829	0.95	20	0.352	0.352
GROUP 2	11	21.0273	1.575	0.475						

UGT34	1-CONTROL	2-EXPOSURE	AGE:34 DAYS							
GROUP 1	11	22.3363	1.668	0.503	1.02	0.979	0.76	20	0.458	0.458
GROUP 2	11	21.8000	1.654	0.499						

UGT35	1-CONTROL	2-EXPOSURE	AGE:35 DAYS							
GROUP 1	11	22.8363	1.928	0.581	1.02	0.981	0.72	20	0.479	0.479
GROUP 2	11	22.2454	1.914	0.577						

Table A.1 (continued)

VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F VALUE	2-TAIL PROB.	Y VALUE	DEGREES OF FREEDOM	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.
UCT38	1-CONTROL 2-EXPOSURE AGE:38 DAYS										
GROUP 1	11	23.0454	1.843	0.556	1.60	0.42	0.47	20	0.47	18.77	0.645
GROUP 2	11	22.6182	2.396	0.722							
UCT39	1-CONTROL 2-EXPOSURE AGE:39 DAYS										
GROUP 1	11	23.9363	1.566	0.472	2.39	0.106	0.89	20	0.89	17.13	0.386
GROUP 2	11	23.1636	2.419	0.729							
UCT40	1-CONTROL 2-EXPOSURE AGE:40 DAYS										
GROUP 1	11	24.0636	1.542	0.465	2.25	0.217	1.01	20	1.01	17.43	0.327
GROUP 2	11	23.2182	2.312	0.697							
UCT41	1-CONTROL 2-EXPOSURE AGE:41 DAYS										
GROUP 1	11	24.7818	1.464	0.441	2.60	0.147	0.87	20	0.87	16.69	0.397
GROUP 2	11	24.0545	2.362	0.712							
UCT42	1-CONTROL 2-EXPOSURE AGE:42 DAYS										
GROUP 1	11	24.8454	1.511	0.456	2.62	0.144	0.93	20	0.93	16.66	0.364
GROUP 2	11	24.0363	2.447	0.738							

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VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F VALUE	POOLED VARIANCE ESTIMATE		SEPARATE VARIANCE ESTIMATE	
						T VALUE	DEGREES OF FREEDOM	T VALUE	DEGREES OF FREEDOM
UCT45									
GROUP 1	11	25.6363	1.404	0.423	2.79	0.121	1.03	0.317	1.03
GROUP 2	11	24.7909	2.346	0.707					
UCT46									
GROUP 1	11	26.2000	1.514	0.487	2.45	0.174	1.03	0.317	1.03
GROUP 2	11	25.2727	2.527	0.762					
UCT47									
GROUP 1	11	25.9454	1.393	0.420	2.72	0.130	1.22	0.235	1.22
GROUP 2	11	24.9545	2.296	0.692					
UCT48									
GROUP 1	11	27.0090	1.625	0.490	2.28	0.210	1.40	0.176	1.40
GROUP 2	11	25.7636	2.454	0.740					
UCT49									
GROUP 1	11	27.1182	1.422	0.429	2.85	0.114	1.70	0.105	1.70
GROUP 2	11	25.6909	2.401	0.724					
UCT52									
GROUP 1	11	27.4454	1.379	0.416	2.67	0.138	1.85	0.079	1.85
GROUP 2	11	25.9727	2.251	0.679					
UCT53									
GROUP 1	11	27.6818	1.342	0.405	3.65	0.053	1.67	0.111	1.67
GROUP 2	11	26.2272	2.563	0.773					

Table A.1 (continued)

VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F VALUE	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.
UGT54	1-CONTROL 2-EXPOSURE AGE:54 DAYS										
GROUP 1	11	27.3509	1.546	0.466	3.36	0.009	1.54	20	0.139	15.46	0.144
GROUP 2	11	25.8909	2.835	0.855							
UGT55	1-CONTROL 2-EXPOSURE AGE:55 DAYS										
GROUP 1	11	27.9363	1.086	0.327	6.55	0.006	2.22	20	0.038	12.99	0.044
GROUP 2	11	25.9363	2.778	0.838							
UGT56	1-CONTROL 2-EXPOSURE AGE:56 DAYS										
GROUP 1	11	29.0000	1.266	0.382	4.08	0.037	1.79	20	0.089	14.62	0.094
GROUP 2	11	27.4636	2.557	0.771							
UGT59	1-CONTROL 2-EXPOSURE AGE:59 DAYS										
GROUP 1	11	29.4818	1.310	0.395	4.88	0.019	1.85	20	0.079	13.93	0.085
GROUP 2	11	27.7091	2.894	0.873							
UGT60	1-CONTROL 2-EXPOSURE AGE:60 DAYS										
GROUP 1	11	29.6454	1.465	0.442	4.06	0.037	1.72	20	0.101	14.65	0.106
GROUP 2	11	27.9363	2.950	0.889							
UGT61	1-CONTROL 2-EXPOSURE AGE:61 DAYS										
GROUP 1	11	29.8363	1.517	0.458	3.97	0.040	1.81	20	0.085	14.74	0.091
GROUP 2	11	27.9909	3.024	0.912							
UGT62	1-CONTROL 2-EXPOSURE AGE:62 DAYS										
GROUP 1	11	31.2272	3.115	0.939	1.01	0.983	2.18	20	0.041	20.91	0.041
GROUP 2	11	28.3363	3.094	0.933							

Table A.1 (continued)

		T - T E S T			P O O L E D V A R I A N C E E S T I M A T E			S E P A R A T E V A R I A N C E E S T I M A T E		
U S E A B L E	N U M B E R O F C A S E S	M E A N	S T A N D A R D D E V I A T I O N	S T A N D A R D E R R O R	F V A L U E	2 - T A I L P R O B .	T V A L U E	D E G R E E S O F F R E E D O M	T V A L U E	D E G R E E S O F F R E E D O M
U G T 6 5 1 - C O N T R O L 2 - E X P O S U R E A G E : 6 5 D A Y S										
GROUP 1	11	30.9090	1.466	0.442	3.86	0.044	2.14	20	2.14	14.86
GROUP 2	11	28.5272	2.878	0.868						
U G T 6 7 1 - C O N T R O L 2 - E X P O S U R E A G E : 6 7 D A Y S										
GROUP 1	11	31.2151	1.379	0.416	5.27	0.015	2.06	20	2.06	13.66
GROUP 2	11	29.0727	3.166	0.954						
U G T 6 8 1 - C O N T R O L 2 - E X P O S U R E A G E : 6 8 D A Y S										
GROUP 1	11	31.2819	1.573	0.474	4.05	0.038	2.14	20	2.14	14.66
GROUP 2	11	29.0000	3.164	0.954						
U G T 6 9 1 - C O N T R O L 2 - E X P O S U R E A G E : 6 9 D A Y S										
GROUP 1	10	31.4000	1.498	0.474	5.84	0.017	1.52	16	1.40	8.92
GROUP 2	8	29.4875	3.622	1.281						
U G T 7 0 1 - C O N T R O L 2 - E X P O S U R E A G E : 7 0 D A Y S										
GROUP 1	11	31.9363	1.566	0.472	3.73	0.049	1.99	20	1.99	15.00
GROUP 2	11	29.8509	3.024	0.912						
U G T 7 3 1 - C O N T R O L 2 - E X P O S U R E A G E : 7 3 D A Y S										
GROUP 1	10	31.6000	1.774	0.561	2.07	0.110	1.95	18	1.99	14.30
GROUP 2	10	28.3500	3.110	0.983						
U G T 7 4 1 - C O N T R O L 2 - E X P O S U R E A G E : 7 4 D A Y S										
GROUP 1	10	31.5900	1.913	0.605	2.79	0.142	1.54	18	1.94	14.72
GROUP 2	10	29.3100	3.106	1.011						

Table A.1 (continued)

VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	T - T E S T		P O O L E D V A R I A N C E E S T I M A T E		S E P A R A T E V A R I A N C E E S T I M A T E	
					F VALUE	2-TAIL PROB.	T VALUE	D E G R E E S O F F R E E D O M	T VALUE	D E G R E E S O F F R E E D O M
UGT131	1-CONTROL	2-EXPOSURE AGE:131 DAYS								
GROUP 1	9	42.1727	2.098	0.699	2.93	0.150	3.37	16	0.004	12.90
GROUP 2	9	37.7111	3.588	1.196					3.37	12.90
UGT138	1-CONTROL	2-EXPOSURE AGE:138 DAYS								
GROUP 1	9	42.2000	1.772	0.591	3.65	0.005	3.45	16	0.003	12.06
GROUP 2	9	37.7999	3.386	1.129					3.45	12.06
UGT145	1-CONTROL	2-EXPOSURE AGE:145 DAYS								
GROUP 1	9	43.3666	1.536	0.512	4.91	0.037	3.58	16	0.003	11.13
GROUP 2	9	38.9111	3.404	1.135					3.58	11.13
UGT152	1-CONTROL	2-EXPOSURE AGE:152 DAYS								
GROUP 1	9	44.3444	1.890	0.630	3.39	0.104	3.21	16	0.006	12.34
GROUP 2	9	40.1111	3.481	1.160					3.21	12.34
UGT159	1-CONTROL	2-EXPOSURE AGE:159 DAYS								
GROUP 1	9	45.2000	1.869	0.623	3.06	0.134	3.04	16	0.008	12.73
GROUP 2	9	41.3888	3.269	1.090					3.04	12.73
UGT166	1-CONTROL	2-EXPOSURE AGE:166 DAYS								
GROUP 1	9	45.7333	1.853	0.618	2.35	0.249	3.24	16	0.005	13.77
GROUP 2	9	42.0777	2.839	0.946					3.24	13.77
UGT173	1-CONTROL	2-EXPOSURE AGE:173 DAYS								
GROUP 1	9	45.4666	2.070	0.650	2.14	0.303	2.45	16	0.026	14.14
GROUP 2	9	42.4666	3.028	1.009					2.45	14.14

Table A.1 (continued)

VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F VALUE	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.
UGT180	1-CONTROL 2-EXPOSURE AGE:180 DAYS								
GROUP 1	9	46.0888	1.872	0.624	1.89	0.385	2.75	16	0.014
GROUP 2	9	43.1666	2.577	0.859					
UGT187	1-CONTROL 2-EXPOSURE AGE:187 DAYS								
GROUP 1	9	45.8333	2.157	0.719	2.23	0.278	2.53	16	0.022
GROUP 2	9	42.5666	3.220	1.073					
UGT194	1-CONTROL 2-EXPOSURE AGE:194 DAYS								
GROUP 1	7	47.3571	2.126	0.803	1.04	0.964	2.03	12	0.065
GROUP 2	7	45.0285	2.167	0.819					
UGT201	1-CONTROL 2-EXPOSURE AGE:201 DAYS								
GROUP 1	8	46.3250	2.359	0.834	2.34	0.286	1.84	14	0.087
GROUP 2	8	43.5250	3.605	1.275					
UGT208	1-CONTROL 2-EXPOSURE AGE:208 DAYS								
GROUP 1	8	46.2000	2.063	0.729	3.38	0.131	2.00	14	0.065
GROUP 2	8	43.1500	3.793	1.341					
UGT215	1-CONTROL 2-EXPOSURE AGE:215 DAYS								
GROUP 1	8	47.4124	2.108	0.745	2.07	0.357	2.57	14	0.022
GROUP 2	8	44.0500	3.037	1.074					
UGT222	1-CONTROL 2-EXPOSURE AGE:222 DAYS								
GROUP 1	8	47.2625	2.535	0.896	1.44	0.645	2.43	14	0.029
GROUP 2	8	43.8625	3.038	1.074					

Table A.1 (continued)

T - TEST													
VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	T - TEST			POOLED VARIANCE ESTIMATE			SEPARATE VARIANCE ESTIMATE		
					F VALUE	2-TAIL PROB.	T VALUE	T VALUE	DEGREES OF FREEDOM	PROB.	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.
UCT229	1-CONTROL	2-EXPOSURE	AGE:1229 DAYS										
GROUP 1	8	46.4125	2.919	1.032									
GROUP 2	3	42.1749	4.047	1.431	1.92	0.408	2.23	2.23	14	0.042	2.23	12.73	0.044
UCT236	1-CONTROL	2-EXPOSURE	AGE:236 DAYS										
GROUP 1	8	46.5125	3.435	1.214									
GROUP 2	8	42.8374	3.859	1.365	1.26	0.766	2.01	2.01	14	0.064	2.01	13.81	0.064
UCT243	1-CONTROL	2-EXPOSURE	AGE:243 DAYS										
GROUP 1	8	46.4875	2.582	0.913									
GROUP 2	8	41.9625	4.214	1.490	2.66	0.219	2.59	2.59	14	0.021	2.59	11.61	0.024
UCT250	1-CONTROL	2-EXPOSURE	AGE:250 DAYS										
GROUP 1	7	45.8142	2.706	1.023									
GROUP 2	6	43.3000	3.824	1.561	2.00	0.424	1.39	1.39	11	0.193	1.35	8.85	0.211
UCT257	1-CONTROL	2-EXPOSURE	AGE:257 DAYS										
GROUP 1	7	46.3714	2.971	1.123									
GROUP 2	6	43.6500	3.463	1.414	1.36	0.712	1.53	1.53	11	0.155	1.51	9.99	0.163
UCT264	1-CONTROL	2-EXPOSURE	AGE:264 DAYS										
GROUP 1	7	47.1428	3.232	1.222									
GROUP 2	7	42.6857	5.153	1.948	2.54	0.281	1.94	1.94	12	0.076	1.94	10.09	0.081
UCT271	1-CONTROL	2-EXPOSURE	AGE:271 DAYS										
GROUP 1	7	46.1000	3.294	1.245									
GROUP 2	7	41.7142	5.478	2.071	2.77	0.241	1.82	1.82	12	0.095	1.82	9.84	0.100

Table A.1 (continued)

VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F VALUE	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	T VALUE	2-TAIL PROB.	DEGREES OF FREEDOM
UGT278	1-CONTROL 2-EXPOSURE AGE:278 DAYS										
GROUP 1	7	45.8571	3.673	1.386	2.37	0.317	1.61	12	1.61	0.133	10.30
GROUP 2	7	41.7428	5.658	2.138							0.138
UGT285	1-CONTROL 2-EXPOSURE AGE:285 DAYS										
GROUP 1	7	44.5959	3.728	1.409	1.89	0.457	1.57	12	1.57	0.142	10.96
GROUP 2	7	40.8285	5.130	1.939							0.144
UGT292	1-CONTROL 2-EXPOSURE AGE:292 DAYS										
GROUP 1	7	46.4571	3.217	1.216	2.50	0.270	1.56	12	1.56	0.145	10.02
GROUP 2	7	42.8571	5.188	1.961							0.150
UGT299	1-CONTROL 2-EXPOSURE AGE:299 DAYS										
GROUP 1	7	45.6571	3.927	1.484	1.73	0.521	1.77	12	1.77	0.102	11.20
GROUP 2	7	41.3143	5.168	1.953							0.104
UGT306	1-CONTROL 2-EXPOSURE AGE:306 DAYS										
GROUP 1	7	46.5285	3.807	1.439	1.53	0.620	2.13	12	2.13	0.055	11.50
GROUP 2	7	41.6571	4.705	1.778							0.057
UGT313	1-CONTROL 2-EXPOSURE AGE:313 DAYS										
GROUP 1	7	43.8857	3.561	1.346	2.29	0.327	1.86	12	1.86	0.088	10.40
GROUP 2	7	39.3571	5.387	2.036							0.093
UGT320	1-CONTROL 2-EXPOSURE AGE:320 DAYS										
GROUP 1	7	44.7000	3.780	1.429	2.31	0.333	1.70	12	1.70	0.115	10.38
GROUP 2	7	40.2857	5.741	2.170							0.120

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[illegible]

Table A.1 (continued)

VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F VALUE	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.
UCT376	1-CONTROL	2-EXPOSURE	AGE:376 DAYS								
GROUP 1	7	44.1428	5.365	2.028	1.35	0.727	1.16	12	1.16	11.74	0.269
GROUP 2	7	40.5428	6.225	2.353							
UCT391	1-CONTROL	2-EXPOSURE	AGE:391 DAYS								
GROUP 1	7	44.5285	5.409	2.045	1.00	0.926	1.04	12	1.04	11.98	0.321
GROUP 2	7	41.4714	5.628	2.127							
UCT397	1-CONTROL	2-EXPOSURE	AGE:397 DAYS								
GROUP 1	7	44.1428	5.343	2.019	1.46	0.659	1.07	12	1.07	11.60	0.304
GROUP 2	7	40.7428	6.450	2.438							
UCT404	1-CONTROL	2-EXPOSURE	AGE:404 DAYS								
GROUP 1	7	44.4571	4.721	1.784	1.89	0.450	1.26	12	1.26	10.97	0.234
GROUP 2	7	40.6428	6.483	2.450							
UCT411	1-CONTROL	2-EXPOSURE	AGE:411 DAYS								
GROUP 1	7	44.9857	5.344	2.020	1.59	0.588	1.25	12	1.25	11.41	0.238
GROUP 2	7	40.9285	6.738	2.547							

Table A.1 (continued)

VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	T - T E S T		P O O L E D V A R I A N C E E S T I M A T E		S E P A R A T E V A R I A N C E E S T I M A T E	
					F VALUE	2-TAIL PROB.	T VALUE	D E G R E E S O F F R E E D O M	T VALUE	D E G R E E S O F F R E E D O M
UGT418	1-CONTROL	2-EXPOSURE	AGE:418 DAYS							
GROUP 1	7	45.6428	5.196	1.964	1.86	0.471	1.29	12	0.222	11.21
GROUP 2	7	41.3714	7.079	2.676						0.225
UGT425	1-CONTROL	2-EXPOSURE	AGE:425 DAYS							
GROUP 1	7	45.6142	5.787	2.187	1.57	0.596	1.39	12	0.190	11.43
GROUP 2	7	40.7428	7.257	2.743						0.192
UGT432	1-CONTROL	2-EXPOSURE	AGE:432 DAYS							
GROUP 1	7	46.5714	5.628	2.127	1.38	0.705	1.44	12	0.175	11.70
GROUP 2	7	41.8428	6.613	2.499						0.175
UGT439	1-CONTROL	2-EXPOSURE	AGE:439 DAYS							
GROUP 1	7	46.7285	4.967	1.877	1.54	0.614	1.62	12	0.130	11.48
GROUP 2	7	41.8714	6.162	2.329						0.133
UGT446	1-CONTROL	2-EXPOSURE	AGE:446 DAYS							
GROUP 1	6	45.8000	4.494	1.835	1.82	0.529	1.31	11	0.216	10.22
GROUP 2	7	41.8571	6.058	2.290						0.206
UGT453	1-CONTROL	2-EXPOSURE	AGE:453 DAYS							
GROUP 1	6	46.0657	5.302	2.165	1.30	0.788	1.27	11	0.231	10.39
GROUP 2	7	42.0286	6.056	2.289						0.226
UGT459	1-CONTROL	2-EXPOSURE	AGE:460 DAYS							
GROUP 1	6	45.0833	7.405	3.025	1.72	0.527	0.52	11	0.372	9.30
GROUP 2	7	41.7571	5.552	2.136						0.392

Table A.1 (continued)

VARIABLE	MURDER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F VALUE	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.
UGT467	1-CONTROL	2-EXPOSURE	AGE:467 DAYS									
GROUP 1	6	45.8833	5.131	2.095	1.59	0.628	1.42	11	0.102	1.45	10.96	0.175
GROUP 2	7	41.2142	6.468	2.444								
UGT474	1-CONTROL	2-EXPOSURE	AGE:474 DAYS									
GROUP 1	6	45.0667	4.533	1.851	1.79	0.541	1.43	11	0.102	1.46	10.85	0.172
GROUP 2	7	40.7714	6.057	2.289								
UGT481	1-CONTROL	2-EXPOSURE	AGE:481 DAYS									
GROUP 1	6	44.5000	5.057	2.064	1.60	0.625	1.25	11	0.238	1.27	10.95	0.229
GROUP 2	7	40.4571	6.386	2.414								
UGT488	1-CONTROL	2-EXPOSURE	AGE:488 DAYS									
GROUP 1	6	45.7000	5.449	2.224	1.26	0.820	1.43	11	0.179	1.45	10.97	0.175
GROUP 2	7	41.0571	6.108	2.309								

Table A.1 (continued)

T - T E S T													
VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F - 2-TAIL			POOLED VARIANCE ESTIMATE			SEPARATE VARIANCE ESTIMATE		
					F VALUE	2-TAIL PROB.	1	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.
LCY495 1-CONTROL 2-EXPOSURE AGE:495 DAYS													
GROUP 1	6	45.5333	5.374	2.194	1.52	0.661	1	1.41	11	0.186	1.43	10.98	0.179
GROUP 2	7	40.7571	6.631	2.506			1						
LCY502 1-CONTROL 2-EXPOSURE AGE:502 DAYS													
GROUP 1	6	43.9000	4.778	1.950	1.11	0.926	1	2.47	11	0.331	2.48	10.86	0.030
GROUP 2	7	37.1286	5.039	1.905			1						
LCY509 1-CONTROL 2-EXPOSURE AGE:509 DAYS													
GROUP 1	6	45.5200	5.519	2.253	1.31	0.783	1	1.54	11	0.152	1.56	10.39	0.148
GROUP 2	7	40.4857	6.323	2.390			1						
LCY516 1-CONTROL 2-EXPOSURE AGE:516 DAYS													
GROUP 1	6	44.7500	5.096	2.081	1.27	0.797	1	2.14	10	0.058	2.14	9.86	0.058
GROUP 2	6	38.0333	5.754	2.349			1						
LCY523 1-CONTROL 2-EXPOSURE AGE:523 DAYS													
GROUP 1	6	44.7500	5.281	2.156	1.53	0.656	1	1.37	11	0.199	1.39	10.98	0.191
GROUP 2	7	40.1857	6.537	2.471			1						
LCY530 1-CONTROL 2-EXPOSURE AGE:530 DAYS													
GROUP 1	6	44.6833	5.382	2.197	1.25	0.824	1	1.41	11	0.187	1.42	10.37	0.183
GROUP 2	7	40.1857	6.020	2.275			1						
LCY537 1-CONTROL 2-EXPOSURE AGE:537 DAYS													
GROUP 1	6	44.8667	4.646	1.897	1.52	0.660	1	1.47	11	0.170	1.50	10.98	0.163
GROUP 2	7	40.5571	5.737	2.168			1						

Table A.1 (continued)

VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F - T E S T			POOLED VARIANCE ESTIMATE			SEPARATE VARIANCE ESTIMATE		
					F VALUE	2-TAIL PROB.	7 DEGREES OF FREEDOM	7 VALUE	7 DEGREES OF FREEDOM	7 VALUE	7 DEGREES OF FREEDOM	2-TAIL PROB.	
UCT544 1-CONTROL 2-EXPOSURE AGE:544 DAYS													
GROUP 1	6	44.2166	4.579	1.870	1.63	0.610	1.35	11	0.204	1.38	10.94	0.195	
GROUP 2	7	40.2285	5.841	2.208									
UCT551 1-CONTROL 2-EXPOSURE AGE:551 DAYS													
GROUP 1	6	44.6333	4.479	1.828	1.73	0.563	1.26	11	0.233	1.29	10.88	0.223	
GROUP 2	7	40.9143	5.895	2.228									
UCT558 1-CONTROL 2-EXPOSURE AGE:558 DAYS													
GROUP 1	6	44.8560	4.061	1.658	2.32	0.373	1.53	11	0.155	1.58	10.39	0.146	
GROUP 2	7	40.3285	6.189	2.339									
UCT565 1-CONTROL 2-EXPOSURE AGE:565 DAYS													
GROUP 1	6	45.0500	4.269	1.743	2.27	0.387	1.77	11	0.104	1.83	10.45	0.097	
GROUP 2	7	39.5714	6.427	2.429									

Table A.2 Body masses for F3-2 female mice.

FOR F3-2 FEMALES

T E S T									
					P O O L E D V A R I A N C E E S T I M A T E			S E P A R A T E V A R I A N C E E S T I M A T E	
VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F		T		DEGREES OF FREEDOM
					VALUE	2-TAIL PROB.	VALUE	2-TAIL PROB.	
UCT10 1-CONTROL 2-EXPOSURE AGE:10 DAYS									
GROUP 1	11	7.6454	2.151	0.649	1.59	0.458	-0.63	0.538	21
GROUP 2	12	8.1500	1.706	0.492			-0.62	0.543	19.09
UCT11 1-CONTROL 2-EXPOSURE AGE:11 DAYS									
GROUP 1	11	7.9636	1.996	0.602	2.13	0.230	-1.21	0.241	21
GROUP 2	12	8.8167	1.366	0.394			-1.19	0.251	17.50
UCT12 1-CONTROL 2-EXPOSURE AGE:12 DAYS									
GROUP 1	11	8.6000	1.818	0.548	1.59	0.458	-1.09	0.288	21
GROUP 2	12	9.3417	1.441	0.416			-1.08	0.295	19.08
UCT13 1-CONTROL 2-EXPOSURE AGE:13 DAYS									
GROUP 1	11	9.1364	1.718	0.518	1.44	0.555	-1.42	0.171	21
GROUP 2	12	10.0667	1.430	0.413			-1.40	0.175	19.56
UCT14 1-CONTROL 2-EXPOSURE AGE:14 DAYS									
GROUP 1	11	9.0636	1.673	0.504	1.30	0.674	-0.96	0.349	21
GROUP 2	12	9.6917	1.469	0.424			-0.95	0.352	20.04
UCT17 1-CONTROL 2-EXPOSURE AGE:17 DAYS									
GROUP 1	9	11.0000	1.253	0.418	1.04	0.978	-1.22	0.237	19
GROUP 2	12	11.6833	1.280	0.369			-1.23	0.236	17.59
UCT18 1-CONTROL 2-EXPOSURE AGE:18 DAYS									
GROUP 1	10	10.9800	1.411	0.451	1.06	0.980	-1.39	0.210	20
GROUP 2	12	11.7500	1.369	0.395			-1.29	0.212	19.06

Table A.2 (continued)

VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F VALUE	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.
UCT38	1-CONTROL 2-EXPOSURE AGE:138 DAYS										
GROUP 1	9	19.5889	1.072	0.357	2.32	0.245	-1.42	18	0.172	17.31	0.115
GROUP 2	11	20.4009	1.633	0.492							
UCT39	1-CONTROL 2-EXPOSURE AGE:139 DAYS										
GROUP 1	9	19.6222	0.578	0.193	4.45	0.045	-1.12	18	0.279	14.84	0.251
GROUP 2	11	20.1182	1.220	0.363							
UCT40	1-CONTROL 2-EXPOSURE AGE:140 DAYS										
GROUP 1	9	19.7555	0.805	0.268	2.15	0.291	-1.16	18	0.263	17.53	0.245
GROUP 2	11	20.2099	1.179	0.356							
UCT41	1-CONTROL 2-EXPOSURE AGE:141 DAYS										
GROUP 1	9	20.7778	0.540	0.180	4.87	0.035	-0.43	18	0.671	14.51	0.650
GROUP 2	11	20.9636	1.192	0.359							
UCT42	1-CONTROL 2-EXPOSURE AGE:142 DAYS										
GROUP 1	9	20.5667	0.604	0.201	3.27	0.107	-0.64	18	0.531	16.07	0.509
GROUP 2	11	20.8273	1.092	0.329							
UCT45	1-CONTROL 2-EXPOSURE AGE:145 DAYS										
GROUP 1	9	20.5333	0.541	0.180	3.16	0.117	-0.16	18	0.875	16.21	0.868
GROUP 2	11	20.5009	0.961	0.290							
UCT46	1-CONTROL 2-EXPOSURE AGE:146 DAYS										
GROUP 1	9	20.8222	0.857	0.286	1.76	0.436	-0.39	18	0.703	17.31	0.695
GROUP 2	11	21.0000	1.136	0.343							

Table A.2 (continued)

VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	P O O L E D		S E P A R A T E	
					F	2-TAIL PROB.	T	DEGREES OF FREEDOM
UC147	1-CONTROL	AGE:47 DAYS						
GROUP 1	9	20.4444	0.654	0.218	1.99	0.342	-1.12	18
GROUP 2	11	20.8545	0.922	0.278				
UC148	1-CONTROL	AGE:48 DAYS						
GROUP 1	9	21.1444	0.555	0.185	5.04	0.031	-0.49	18
GROUP 2	11	21.3636	1.245	0.375				
UC149	1-CONTROL	AGE:49 DAYS						
GROUP 1	9	21.7889	0.961	0.320	1.45	0.612	1.01	18
GROUP 2	11	21.3000	1.156	0.349				
UC152	1-CONTROL	AGE:52 DAYS						
GROUP 1	9	20.8555	0.962	0.321	2.15	0.290	-0.88	18
GROUP 2	11	21.3454	1.411	0.425				
UC153	1-CONTROL	AGE:53 DAYS						
GROUP 1	9	21.6000	0.980	0.327	3.10	0.123	-0.15	18
GROUP 2	11	21.7000	1.724	0.520				
UC154	1-CONTROL	AGE:54 DAYS						
GROUP 1	9	21.1667	0.728	0.243	5.14	0.029	-0.65	18
GROUP 2	11	21.5545	1.658	0.498				
UC155	1-CONTROL	AGE:55 DAYS						
GROUP 1	9	21.7111	0.774	0.258	3.77	0.072	-0.06	18
GROUP 2	11	21.7454	1.503	0.453				

Table A.2 (continued)

VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F VALUE	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.
UC156 GROUP 1	1-CONTROL 2-EXPOSURE AGE:56 DAYS	21.9889	1.258	0.419	1.78	0.425	-0.70	18	0.492	-0.72	17.90	0.480
GROUP 2	11	22.4536	1.680	0.507								
UC159 GROUP 1	1-CONTROL 2-EXPOSURE AGE:59 DAYS	21.0667	2.425	0.808	1.63	0.499	-0.76	18	0.458	-0.78	17.98	0.447
GROUP 2	11	22.0273	3.099	0.934								
UC160 GROUP 1	1-CONTROL 2-EXPOSURE AGE:60 DAYS	22.0222	1.495	0.408	1.91	0.773	-0.65	18	0.526	-0.67	17.79	0.513
GROUP 2	11	23.3545	2.065	0.622								
UC161 GROUP 1	1-CONTROL 2-EXPOSURE AGE:61 DAYS	22.9667	1.410	0.473	2.99	0.135	-0.46	18	0.652	-0.48	16.42	0.635
GROUP 2	11	23.3909	2.453	0.739								
UC162 GROUP 1	1-CONTROL 2-EXPOSURE AGE:62 DAYS	23.2889	1.549	0.516	2.40	0.228	-0.56	18	0.582	-0.59	17.21	0.566
GROUP 2	11	23.8091	2.398	0.723								
UC166 GROUP 1	1-CONTROL 2-EXPOSURE AGE:66 DAYS	23.9444	1.748	0.583	2.32	0.245	-0.65	18	0.523	-0.68	17.20	0.507
GROUP 2	11	24.6182	2.666	0.804								
UC167 GROUP 1	1-CONTROL 2-EXPOSURE AGE:67 DAYS	23.7989	1.941	0.647	1.90	0.375	-0.64	18	0.530	-0.66	17.80	0.517
GROUP 2	11	24.4727	2.676	0.807								

Table A.2 (continued)

T - T E S T												
VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F		T		T		T	
					VALUE	2-TAIL PROB.	VALUE	DEGREES OF FREEDOM	VALUE	DEGREES OF FREEDOM	VALUE	DEGREES OF FREEDOM
----- T - T E S T -----												
UGT68	1-CONTROL 2-EXPOSURE AGE:68 DAYS											
GROUP 1	9	23.8000	2.082	0.694	1.06	0.958	-0.68	18	0.506	-0.68	17.40	0.505
GROUP 2	11	24.4454	2.139	0.645								
UGT69	1-CONTROL 2-EXPOSURE AGE:69 DAYS											
GROUP 1	7	23.4286	1.476	0.558	3.24	0.166	-0.49	15	0.622	-0.55	14.46	0.593
GROUP 2	10	23.9800	2.658	0.841								
UGT70	1-CONTROL 2-EXPOSURE AGE:70 DAYS											
GROUP 1	9	23.9333	1.593	0.531	2.91	0.143	-0.93	18	0.364	-0.98	16.52	0.341
GROUP 2	11	24.8909	2.718	0.820								
UGT73	1-CONTROL 2-EXPOSURE AGE:73 DAYS											
GROUP 1	8	24.4500	1.828	0.646	2.09	0.343	-0.42	16	0.682	-0.44	15.74	0.669
GROUP 2	10	24.9100	2.643	0.836								
UGT74	1-CONTROL 2-EXPOSURE AGE:74 DAYS											
GROUP 1	8	24.2500	2.039	0.721	1.94	0.395	-0.54	16	0.600	-0.56	15.87	0.586
GROUP 2	10	24.8900	2.839	0.898								
UGT75	1-CONTROL 2-EXPOSURE AGE:75 DAYS											
GROUP 1	8	24.1375	2.074	0.733	1.94	0.396	-0.54	16	0.593	-0.57	15.87	0.579
GROUP 2	10	24.8000	2.886	0.913								
UGT88	1-CONTROL 2-EXPOSURE AGE:89 DAYS											
GROUP 1	8	26.6125	2.892	1.023	1.90	0.411	-0.54	16	0.597	-0.56	15.90	0.584
GROUP 2	10	27.5200	3.984	1.260								

Table A.2 (continued)

VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F VALUE	2-TAIL PROB.	T VALUE	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.
UC706	1-CONTROL 2-EXPOSURE AGE:96 DAYS									
GROUP 1	8	26.8250	4.103	1.451	1.39	0.663	-0.59	-0.61	16	0.553
GROUP 2	10	28.1000	4.829	1.527						
UC707	1-CONTROL 2-EXPOSURE AGE:103 DAYS									
GROUP 1	7	26.9714	4.072	1.539	1.16	0.821	-0.60	-0.60	14	0.557
GROUP 2	9	28.1555	3.779	1.260						
UC710	1-CONTROL 2-EXPOSURE AGE:110 DAYS									
GROUP 1	7	29.4286	4.538	1.866	1.74	0.457	-0.38	-0.37	14	0.708
GROUP 2	9	30.2555	3.740	1.247						
UC711	1-CONTROL 2-EXPOSURE AGE:117 DAYS									
GROUP 1	7	31.0571	5.614	2.122	1.32	0.699	0.17	0.16	14	0.871
GROUP 2	9	30.6222	4.891	1.630						
UC724	1-CONTROL 2-EXPOSURE AGE:124 DAYS									
GROUP 1	6	33.6833	1.787	0.729	5.68	0.072	1.06	1.24	13	0.307
GROUP 2	9	31.7111	4.258	1.419						
UC731	1-CONTROL 2-EXPOSURE AGE:131 DAYS									
GROUP 1	6	35.3833	1.297	0.529	10.99	0.017	0.86	1.03	13	0.405
GROUP 2	9	33.8111	4.299	1.433						
UC738	1-CONTROL 2-EXPOSURE AGE:138 DAYS									
GROUP 1	6	36.4667	0.957	0.391	14.16	0.010	1.23	1.43	13	0.242
GROUP 2	9	34.6000	3.603	1.201						

Table A.2 (continued)

VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F VALUE	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.
UGT194	1-CONTROL	2-EXPOSURE	AGE:194 DAYS									
GROUP 1	4	45.5500	3.144	1.572	1.25	0.923	1.48	9	0.173	1.53	7.03	0.170
GROUP 2	7	42.4000	3.519	1.330								
UGT201	1-CONTROL	2-EXPOSURE	AGE:201 DAYS									
GROUP 1	3	44.0000	2.762	1.595	1.15	1.000	1.15	7	0.287	1.18	4.38	0.302
GROUP 2	6	41.6333	2.958	1.208								
UGT208	1-CONTROL	2-EXPOSURE	AGE:208 DAYS									
GROUP 1	3	44.2333	3.523	2.034	1.01	1.000	0.90	7	0.398	0.90	4.11	0.418
GROUP 2	6	41.9833	3.537	1.444								
UGT215	1-CONTROL	2-EXPOSURE	AGE:215 DAYS									
GROUP 1	3	45.5333	2.230	1.287	2.72	0.581	0.71	7	0.502	0.84	6.40	0.432
GROUP 2	6	43.9667	3.678	1.502								
UGT222	1-CONTROL	2-EXPOSURE	AGE:222 DAYS									
GROUP 1	3	45.5000	2.884	1.665	2.41	0.627	0.80	7	0.453	0.93	6.16	0.388
GROUP 2	6	43.2000	4.482	1.830								
UGT229	1-CONTROL	2-EXPOSURE	AGE:229 DAYS									
GROUP 1	5	43.8000	1.770	0.792	3.79	0.215	1.00	11	0.337	1.16	10.79	0.270
GROUP 2	8	42.1125	3.448	1.219								
UGT236	1-CONTROL	2-EXPOSURE	AGE:236 DAYS									
GROUP 1	5	44.6800	2.037	0.911	3.53	0.240	1.36	11	0.202	1.56	10.87	0.147
GROUP 2	8	42.1375	3.827	1.353								

Table A.2 (continued)

VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F VALUE	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	T VALUE	Y VALUE	DEGREES OF FREEDOM	2-TAIL PROB.
UCT292	1-CONTROL	2-EXPOSURE	AGE:292 DAYS									
GROUP 1	4	45.9608	2.566	1.283								
GROUP 2	7	44.0856	5.071	1.917	3.91	0.291	0.33	9	0.748	0.40	8.98	0.761
UCT299	1-CONTROL	2-EXPOSURE	AGE:299 DAYS									
GROUP 1	4	44.9000	2.316	1.158	4.61	0.237	0.75	9	0.475	0.91	8.86	0.389
GROUP 2	7	42.9000	4.975	1.880								
UCT306	1-CONTROL	2-EXPOSURE	AGE:306 DAYS									
GROUP 1	4	45.2500	2.621	1.310	3.83	0.238	0.59	9	0.569	0.71	8.98	0.498
GROUP 2	7	43.5999	5.127	1.938								
UCT313	1-CONTROL	2-EXPOSURE	AGE:313 DAYS									
GROUP 1	4	41.7250	2.484	1.242	3.73	0.307	0.60	9	0.564	0.71	8.99	0.494
GROUP 2	7	40.1571	4.798	1.813								
UCT320	1-CONTROL	2-EXPOSURE	AGE:320 DAYS									
GROUP 1	4	43.0750	2.334	1.167	5.12	0.208	0.31	9	0.761	0.38	8.76	0.799
GROUP 2	7	42.1857	5.279	1.995								
UCT327	1-CONTROL	2-EXPOSURE	AGE:327 DAYS									
GROUP 1	4	42.1000	1.779	0.890	10.79	0.077	0.21	9	0.842	0.26	7.78	0.798
GROUP 2	7	41.4714	5.844	2.209								
UCT334	1-CONTROL	2-EXPOSURE	AGE:334 DAYS									
GROUP 1	4	41.3250	1.707	0.853	12.64	0.062	0.13	9	0.896	0.17	7.49	0.867
GROUP 2	7	40.9000	6.069	2.294								

Table A.2 (continued)

T-TEST													
VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F			T			SEPARATE VARIANCE ESTIMATE		
					VALUE	2-TAIL PROB.	DEGREES OF FREEDOM	VALUE	2-TAIL PROB.	DEGREES OF FREEDOM	VALUE	2-TAIL PROB.	DEGREES OF FREEDOM
UGT345 1-CONTROL 2-EXPOSURE AGE:345 DAYS													
GROUP 1	4	42.6000	2.370	1.185									
GROUP 2	7	42.1714	5.882	2.223	6.16	0.0164	9	0.894	0.17	9.52	0.869		
UGT348 1-CONTROL 2-EXPOSURE AGE:348 DAYS													
GROUP 1	4	44.5000	1.298	0.649									
GROUP 2	7	43.5428	6.086	2.300	21.99	0.0028	9	0.768	0.40	6.91	0.701		
UGT355 1-CONTROL 2-EXPOSURE AGE:355 DAYS													
GROUP 1	4	44.0000	1.954	0.977									
GROUP 2	7	42.6428	6.189	2.339	10.03	0.005	9	0.686	0.54	7.80	0.607		
UGT362 1-CONTROL 2-EXPOSURE AGE:362 DAYS													
GROUP 1	4	42.4250	1.810	0.905									
GROUP 2	7	40.7285	6.018	2.274	11.06	0.0075	9	0.603	0.69	7.67	0.598		
UGT369 1-CONTROL 2-EXPOSURE AGE:369 DAYS													
GROUP 1	4	43.1000	2.965	1.483									
GROUP 2	7	41.1000	6.350	2.400	4.59	0.0239	9	0.573	0.71	8.87	0.496		
UGT376 1-CONTROL 2-EXPOSURE AGE:376 DAYS													
GROUP 1	4	43.6750	2.454	1.227									
GROUP 2	7	41.5714	6.220	2.351	6.43	0.0155	9	0.540	0.79	8.46	0.451		
UGT391 1-CONTROL 2-EXPOSURE AGE:391 DAYS													
GROUP 1	4	45.0250	1.543	0.772									
GROUP 2	7	41.8428	6.764	2.556	19.21	0.0034	9	0.388	1.19	7.03	0.272		

Table A.2 (continued)

VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F VALUE	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.
UCT397	1-CONTROL	2-EXPOSURE	AGE:397 DAYS								
GROUP 1	4	42.8250	2.928	1.464							
GROUP 2	7	39.6714	9.045	3.419	9.54	0.002	0.66	9	0.85	7.87	0.421
UCT404	1-CONTROL	2-EXPOSURE	AGE:404 DAYS								
GROUP 1	4	45.5250	1.322	0.661	27.98	0.020	0.82	9	1.09	6.72	0.312
GROUP 2	7	42.5571	6.992	2.643							
UCT411	1-CONTROL	2-EXPOSURE	AGE:411 DAYS								
GROUP 1	4	46.0750	1.785	0.893	12.50	0.063	1.11	9	1.43	7.50	0.190
GROUP 2	7	42.4285	6.313	2.386							
UCT418	1-CONTROL	2-EXPOSURE	AGE:418 DAYS								
GROUP 1	4	46.8250	1.558	0.779	19.15	0.034	1.13	9	1.49	7.03	0.180
GROUP 2	7	42.8143	6.819	2.577							
UCT425	1-CONTROL	2-EXPOSURE	AGE:425 DAYS								
GROUP 1	4	46.4650	1.271	0.635	31.68	0.017	0.80	9	1.07	6.64	0.321
GROUP 2	7	43.4571	7.152	2.703							
UCT432	1-CONTROL	2-EXPOSURE	AGE:432 DAYS								
GROUP 1	4	47.5500	0.718	0.359	102.63	0.003	0.55	9	0.74	6.20	0.485
GROUP 2	7	45.4857	7.274	2.749							
UCT439	1-CONTROL	2-EXPOSURE	AGE:439 DAYS								
GROUP 1	4	48.5250	1.319	0.659	30.49	0.018	0.47	9	0.63	6.66	0.549
GROUP 2	7	46.7428	7.283	2.753							

Table A.2 (continued)

VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F		T		T		T	
					VALUE	2-TAIL PROB.	VALUE	DEGREES OF FREEDOM	VALUE	DEGREES OF FREEDOM	VALUE	DEGREES OF FREEDOM
UCT446	1-CONTROL	2-EXPOSURE	AGE:446 DAYS									
GROUP 1	4	48.5000	3.157	1.578	4.48	0.246	0.37	9	0.718	8	0.45	8.89
GROUP 2	7	47.1571	6.680	2.525								0.663
UCT453	1-CONTROL	2-EXPOSURE	AGE:453 DAYS									
GROUP 1	4	49.4500	2.120	1.060	11.02	0.075	0.48	9	0.641	8	0.62	7.67
GROUP 2	7	47.6714	7.037	2.660								0.552
UCT460	1-CONTROL	2-EXPOSURE	AGE:460 DAYS									
GROUP 1	4	48.6750	2.495	1.248	9.52	0.002	0.30	9	0.767	8	0.39	7.88
GROUP 2	7	47.4428	7.700	2.910								0.707
UCT467	1-CONTROL	2-EXPOSURE	AGE:467 DAYS									
GROUP 1	4	47.9500	3.708	1.854	3.59	0.322	0.06	9	0.952	8	0.07	9.00
GROUP 2	7	47.7142	7.021	2.654								0.944
UCT474	1-CONTROL	2-EXPOSURE	AGE:474 DAYS									
GROUP 1	4	47.5500	3.911	1.955	3.21	0.366	0.13	9	0.898	8	0.15	8.99
GROUP 2	7	47.0428	7.011	2.650								0.881
UCT481	1-CONTROL	2-EXPOSURE	AGE:481 DAYS									
GROUP 1	4	46.3750	3.720	1.860	4.26	0.261	-0.21	9	0.839	8	-0.25	8.93
GROUP 2	7	47.2428	7.680	2.943								0.807
UCT488	1-CONTROL	2-EXPOSURE	AGE:488 DAYS									
GROUP 1	4	47.3250	4.047	2.343	2.82	0.425	-0.11	9	0.918	8	-0.12	8.90
GROUP 2	7	47.7157	7.064	2.972								0.906

Table A.2 (continued)

T - T E S T																		
VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F		2-TAIL PROB.		P		T		P		T		P	
					VALUE	2-TAIL PROB.	VALUE	DEGREES OF FREEDOM	VALUE	DEGREES OF FREEDOM	VALUE	DEGREES OF FREEDOM	VALUE	DEGREES OF FREEDOM				
UCT495 1-CONTROL 2-EXPOSURE AGE:495 DAYS																		
GROUP 1	4	48.8000	3.580	1.790	4.35	0.255	-0.05	9	2.564	-0.06	8.91	0.957						
GROUP 2	7	48.9857	7.471	2.824														
UCT502 1-CONTROL 2-EXPOSURE AGE:502 DAYS																		
GROUP 1	4	44.4000	2.331	1.165	11.09	0.074	-0.59	9	0.571	-0.76	7.65	0.471						
GROUP 2	7	46.7857	7.760	2.933														
UCT509 1-CONTROL 2-EXPOSURE AGE:509 DAYS																		
GROUP 1	4	42.3000	3.281	1.641	6.72	0.147	-0.74	9	0.476	-0.93	8.39	0.379						
GROUP 2	7	45.6571	8.504	3.214														
UCT516 1-CONTROL 2-EXPOSURE AGE:516 DAYS																		
GROUP 1	4	44.3250	5.774	2.887	1.92	0.633	-0.63	9	0.543	-0.69	8.24	0.507						
GROUP 2	7	47.2285	8.004	3.025														
UCT523 1-CONTROL 2-EXPOSURE AGE:523 DAYS																		
GROUP 1	4	47.6500	5.444	2.722	2.24	0.542	-0.03	9	0.980	-0.03	8.57	0.977						
GROUP 2	7	47.7714	8.153	3.081														
UCT530 1-CONTROL 2-EXPOSURE AGE:530 DAYS																		
GROUP 1	4	47.7500	6.029	3.014	1.70	0.712	-0.32	9	0.758	-0.34	7.91	0.741						
GROUP 2	7	48.0000	7.850	2.967														
UCT537 1-CONTROL 2-EXPOSURE AGE:537 DAYS																		
GROUP 1	4	47.8500	6.556	3.278	1.47	0.909	-0.35	9	0.736	-0.37	7.51	0.723						
GROUP 2	7	49.4857	7.549	3.005														

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UNIDABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F			T			SEPARATE VARIANCE ESTIMATE			
					2- TAIL PROB.	1- TAIL PROB.	DEGREES OF FREEDOM	2- TAIL PROB.	1- TAIL PROB.	DEGREES OF FREEDOM	2- TAIL PROB.	1- TAIL PROB.	DEGREES OF FREEDOM	
UCT544 1-CONTROL 2-EXPOSURE AGE:544 DAYS														
GROUP 1	4	46.5250	6.957	3.478	1.35	0.869	1	-0.65	9	0.532	1	-0.68	7.26	0.519
GROUP 2	7	49.6714	8.086	3.056			1				1			
UCT551 1-CONTROL 2-EXPOSURE AGE:551 DAYS														
GROUP 1	4	46.6000	7.171	3.585	1.22	0.946	1	-0.68	9	0.515	1	-0.70	6.94	0.508
GROUP 2	7	49.8571	7.905	2.988			1				1			
UCT558 1-CONTROL 2-EXPOSURE AGE:558 DAYS														
GROUP 1	4	46.7250	6.501	3.250	1.51	0.789	1	-0.72	9	0.487	1	-0.77	7.59	0.463
GROUP 2	7	50.1428	7.995	3.022			1				1			
UCT565 1-CONTROL 2-EXPOSURE AGE:565 DAYS														
GROUP 1	4	46.8500	5.890	2.945	1.94	0.626	1	-0.88	9	0.404	1	-0.96	8.26	0.363
GROUP 2	7	50.9714	8.206	3.102			1				1			

Table A.2 (continued)

T E S T													
VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	P O O L E D			V A R I A N C E E S T I M A T E			S E P A R A T E		
					F VALUE	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	T VALUE	DEGREES OF FREEDOM	T VALUE	DEGREES OF FREEDOM	

UGT572	1-CONTROL	2-EXPOSURE	AGE:572 DAYS										
GROUP 1	4	45.5750	5.271	3.136	1.65	0.729	-0.87	9	0.409	-0.93	7.85	0.378	
GROUP 2	7	49.6571	8.065	3.048									

UGT575	1-CONTROL	2-EXPOSURE	AGE:579 DAYS										
GROUP 1	4	44.0000	6.007	3.004	1.69	0.714	-1.00	9	0.343	-1.08	7.91	0.311	
GROUP 2	7	48.5571	7.813	2.953									

UGT586	1-CONTROL	2-EXPOSURE	AGE:586 DAYS										
GROUP 1	4	42.7000	6.667	3.334	1.34	0.874	-1.24	9	0.247	-1.29	7.24	0.237	
GROUP 2	7	48.4285	7.723	2.919									

UGT593	1-CONTROL	2-EXPOSURE	AGE:593 DAYS										
GROUP 1	4	41.9000	6.410	3.205	1.43	0.826	-1.36	9	0.208	-1.43	7.44	0.196	
GROUP 2	7	48.0856	7.677	2.902									

UGT600	1-CONTROL	2-EXPOSURE	AGE:600 DAYS										
GROUP 1	4	44.5250	6.710	3.355	1.30	0.899	-0.72	9	0.491	-0.75	7.13	0.480	
GROUP 2	7	47.8285	7.537	2.886									

Table A.3 (continued)

VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F VALUE	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	T VALUE	2-TAIL PROB.	DEGREES OF FREEDOM	2-TAIL PROB.
UCT15	1-CONTROL 2-EXPOSURE AGE 114 DAYS											
GROUP 1	9	11.7000	1.516	0.505	1.26	0.735	-0.02	17	0.988	-0.02	16.18	0.988
GROUP 2	10	11.7100	1.351	0.427								
UCT20	1-CONTROL 2-EXPOSURE AGE 120 DAYS											
GROUP 1	9	14.1333	1.612	0.537	1.41	0.619	-0.16	17	0.878	-0.16	15.77	0.879
GROUP 2	10	14.2400	1.359	0.430								
UCT21	1-CONTROL 2-EXPOSURE AGE 121 DAYS											
GROUP 1	9	14.7333	1.503	0.501	1.65	0.471	-0.39	17	0.705	-0.38	15.11	0.709
GROUP 2	10	14.9700	1.170	0.370								
UCT22	1-CONTROL 2-EXPOSURE AGE 122 DAYS											
GROUP 1	9	15.5444	1.461	0.487	2.14	0.280	-0.27	17	0.788	-0.27	13.96	0.793
GROUP 2	10	15.7000	1.000	0.316								
UCT23	1-CONTROL 2-EXPOSURE AGE 123 DAYS											
GROUP 1	9	16.3889	1.645	0.548	3.20	0.102	-0.12	17	0.907	-0.11	12.27	0.911
GROUP 2	10	16.4600	0.919	0.291								

Table A.3 (continued)

T-TESTS FOR F4-2 MALES

T E S T										
VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	POOLED VARIANCE ESTIMATE			SEPARATE VARIANCE ESTIMATE		
					F VALUE	2-TAIL PROB.	T VALUE	T VALUE	DEGREES OF FREEDOM	DEGREES OF FREEDOM
UCT26 1-CONTROL 2-EXPOSURE AGE:26 DAYS										
GROUP 1	7	18.3714	1.679	0.635	2.86	0.106	-1.34	-1.30	13	9.48
GROUP 2	8	19.3125	0.993	0.351						0.227
UCT27 1-CONTROL 2-EXPOSURE AGE:27 DAYS										
GROUP 1	9	19.8000	2.284	0.761	1.50	0.558	0.12	0.11	17	15.52
GROUP 2	10	19.6900	1.866	0.590						0.911
UCT28 1-CONTROL 2-EXPOSURE AGE:28 DAYS										
GROUP 1	7	20.1428	1.719	0.650	2.30	0.300	-1.59	-1.55	13	10.17
GROUP 2	8	21.3250	1.134	0.401						0.153
UCT29 1-CONTROL 2-EXPOSURE AGE:29 DAYS										
GROUP 1	8	21.8125	2.341	0.828	7.67	0.010	0.02	0.01	15	8.62
GROUP 2	9	21.8000	0.845	0.282						0.989
UCT30 1-CONTROL 2-EXPOSURE AGE:30 DAYS										
GROUP 1	8	22.5250	2.210	0.781	5.20	0.032	0.22	0.21	15	9.32
GROUP 2	9	22.3444	0.960	0.320						0.835
UCT33 1-CONTROL 2-EXPOSURE AGE:33 DAYS										
GROUP 1	6	23.3833	2.395	0.978	3.69	0.143	-0.65	-0.62	11	7.27
GROUP 2	7	24.0571	1.247	0.471						0.554
UCT35 1-CONTROL 2-EXPOSURE AGE:35 DAYS										
GROUP 1	8	24.7250	2.385	0.843	3.33	0.114	-0.05	-0.04	15	10.58
GROUP 2	9	24.7666	1.308	0.436						0.966

Table A.3 (continued)

VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	T VALUE	2-TAIL PROB.	DEGREES OF FREEDOM	2-TAIL PROB.
UGT36	1-CONTROL 2-EXPOSURE AGE:36 DAYS											
GROUP 1	8	25.4875	2.408	0.851	3.23	0.123	0.45	15	0.44	0.657	10.68	0.670
GROUP 2	9	25.0667	1.340	0.447								
UGT37	1-CONTROL 2-EXPOSURE AGE:37 DAYS											
GROUP 1	8	25.7250	2.301	0.814	3.35	0.112	0.24	15	0.23	0.812	10.56	0.819
GROUP 2	9	25.5111	1.257	0.419								
UGT40	1-CONTROL 2-EXPOSURE AGE:40 DAYS											
GROUP 1	6	26.3667	3.142	1.283	4.24	0.108	-0.57	11	-0.54	0.580	6.99	0.605
GROUP 2	7	27.1286	1.526	0.577								
UGT41	1-CONTROL 2-EXPOSURE AGE:41 DAYS											
GROUP 1	8	27.3875	2.958	1.046	2.78	0.175	-0.10	15	-0.09	0.924	11.19	0.927
GROUP 2	9	27.5000	1.773	0.591								
UGT42	1-CONTROL 2-EXPOSURE AGE:42 DAYS											
GROUP 1	9	27.8500	2.997	1.060	2.29	0.269	-0.01	15	-0.01	0.989	11.92	0.990
GROUP 2	9	27.8667	1.982	0.661								

Table A.3 (continued)

T-TESTS FOR F4-2 MALES

T E S T												
VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F VALUE	2-TAIL PROB.	P O O L E D V A R I A N C E E S T I M A T E			S E P A R A T E V A R I A N C E E S T I M A T E		
							T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.
UCT43 1-CONTROL 2-EXPOSURE AGE:43 DAYS												
GROUP 1	8	28.4625	3.036	1.073	2.52	0.219	-0.00	15	0.997	-9.00	11.55	0.997
GROUP 2	9	28.4666	1.912	0.637								
UCT44 1-CONTROL 2-EXPOSURE AGE:44 DAYS												
GROUP 1	8	28.8250	3.107	1.098	4.76	0.043	0.25	15	0.803	0.24	9.57	0.812
GROUP 2	9	28.5333	1.424	0.475								
UCT47 1-CONTROL 2-EXPOSURE AGE:47 DAYS												
GROUP 1	6	29.2833	3.864	1.578	4.48	0.096	-0.30	11	0.770	-0.28	6.89	0.785
GROUP 2	7	29.7714	1.826	0.690								
UCT48 1-CONTROL 2-EXPOSURE AGE:48 DAYS												
GROUP 1	6	30.2833	3.952	1.613	4.32	0.103	-0.20	11	0.847	-0.19	6.95	0.857
GROUP 2	7	30.6143	1.900	0.718								
UCT49 1-CONTROL 2-EXPOSURE AGE:49 DAYS												
GROUP 1	8	30.9625	3.755	1.328	4.19	0.062	0.18	15	0.860	0.17	9.89	0.867
GROUP 2	9	30.7111	1.834	0.611								
UCT50 1-CONTROL 2-EXPOSURE AGE:50 DAYS												
GROUP 1	8	30.9500	3.746	1.325	4.00	0.070	0.07	15	0.941	0.07	10.02	0.944
GROUP 2	9	30.8444	1.873	0.624								
UCT51 1-CONTROL 2-EXPOSURE AGE:51 DAYS												
GROUP 1	8	31.6375	4.122	1.457	3.57	0.095	0.19	15	0.849	0.19	10.36	0.856
GROUP 2	9	31.3333	2.182	0.727								

Table A.3 (continued)

VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F	2-TAIL VALUE	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.
UCT55	1-CONTROL 2-EXPOSURE AGE:155 DAYS											
GROUP 1	8	33.0250	4.847	1.714	3.92	0.074	-0.03	15	0.973	-0.03	10.08	0.974
GROUP 2	9	33.0289	2.448	0.816								
UCT56	1-CONTROL 2-EXPOSURE AGE:156 DAYS											
GROUP 1	8	33.6750	4.357	1.540	2.98	0.149	-0.12	15	0.907	-0.12	10.94	0.910
GROUP 2	9	33.8777	2.523	0.841								
UCT57	1-CONTROL 2-EXPOSURE AGE:157 DAYS											
GROUP 1	8	34.1125	4.338	1.534	3.21	0.125	-0.01	15	0.995	-0.01	10.70	0.996
GROUP 2	9	34.1222	2.422	0.807								
UCT58	1-CONTROL 2-EXPOSURE AGE:158 DAYS											
GROUP 1	8	34.0000	4.523	1.559	3.46	0.103	-0.22	15	0.830	-0.21	10.46	0.837
GROUP 2	9	34.3777	2.432	0.811								
UCT61	1-CONTROL 2-EXPOSURE AGE:161 DAYS											
GROUP 1	6	34.3667	5.741	2.344	3.37	0.172	-0.45	11	0.660	-0.43	7.47	0.679
GROUP 2	7	35.5000	3.129	1.183								

Table A.3 (continued)

VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F		T		T		T	
					VALUE	2-TAIL PROB.	VALUE	DEGREES OF FREEDOM	VALUE	DEGREES OF FREEDOM	VALUE	DEGREES OF FREEDOM
UCT62 1-CONTROL 2-EXPOSURE AGE:162 DAYS												
GROUP 1	6	34.6000	5.621	2.295	3.36	0.172	-0.40	11	0.700	-0.38	7.47	0.717
GROUP 2	7	35.5714	3.065	1.158								
UCT63 1-CONTROL 2-EXPOSURE AGE:163 DAYS												
GROUP 1	8	35.4625	4.829	1.707	2.84	0.166	-0.23	15	0.821	-0.22	11.11	0.827
GROUP 2	9	35.9000	2.863	0.954								
UCT64 1-CONTROL 2-EXPOSURE AGE:164 DAYS												
GROUP 1	8	36.1625	5.340	1.888	3.53	0.098	-0.11	15	0.917	-0.10	10.39	0.921
GROUP 2	9	36.3777	2.843	0.948								
UCT65 1-CONTROL 2-EXPOSURE AGE:165 DAYS												
GROUP 1	8	37.0000	4.859	1.718	3.21	0.124	-0.20	15	0.848	-0.19	10.70	0.854
GROUP 2	9	37.3666	2.712	0.904								
UCT69 1-CONTROL 2-EXPOSURE AGE:169 DAYS												
GROUP 1	8	37.5125	4.931	1.743	4.69	0.045	-0.53	15	0.605	-0.51	9.60	0.623
GROUP 2	9	38.4777	2.276	0.759								
UCT70 1-CONTROL 2-EXPOSURE AGE:170 DAYS												
GROUP 1	8	38.5999	4.911	1.736	3.53	0.098	-0.25	15	0.807	-0.24	10.39	0.815
GROUP 2	9	39.0666	2.614	0.871								
UCT71 1-CONTROL 2-EXPOSURE AGE:171 DAYS												
GROUP 1	6	37.2500	5.422	2.214	4.05	0.096	-0.06	12	0.409	-0.70	6.85	0.462
GROUP 2	8	39.1250	2.694	0.952								

Table A.3 (continued)

VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F VALUE	T VALUE	DEGREES OF FREEDOM	T VALUE	DEGREES OF FREEDOM	T VALUE	DEGREES OF FREEDOM
UG772	1-CONTROL 2-EXPOSURE AGE:72 DAYS										
GROUP 1	6	37.4167	5.297	2.163	4.17	-0.91	12	-0.93	5.80	0.435	
GROUP 2	8	39.3625	2.595	0.917							
UG776	1-CONTROL 2-EXPOSURE AGE:76 DAYS										
GROUP 1	6	37.1333	6.125	2.500	4.82	-1.06	12	-0.95	6.56	0.371	
GROUP 2	8	39.7000	2.791	0.987							
UG777	1-CONTROL 2-EXPOSURE AGE:77 DAYS										
GROUP 1	6	37.6833	5.595	2.284	4.12	-1.00	12	-0.91	6.82	0.392	
GROUP 2	8	39.9500	2.756	0.974							
UG784	1-CONTROL 2-EXPOSURE AGE:84 DAYS										
GROUP 1	6	38.8333	6.535	2.668	5.05	-0.97	12	-0.87	6.49	0.417	
GROUP 2	8	41.3250	2.908	1.028							
UG791	1-CONTROL 2-EXPOSURE AGE:91 DAYS										
GROUP 1	6	40.2000	6.284	2.565	5.54	-1.07	12	-0.96	6.36	0.376	
GROUP 2	8	42.8125	2.669	0.944							
UG799	1-CONTROL 2-EXPOSURE AGE:99 DAYS										
GROUP 1	5	40.2800	5.856	2.619	3.45	-1.34	10	-1.21	5.66	0.270	
GROUP 2	7	43.7714	3.151	1.191							

Table A.3 (continued)

VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F VALUE	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	T VALUE	2-TAIL PROB.	DEGREES OF FREEDOM	2-TAIL PROB.
UCT154 1-CONTROL 2-EXPOSURE AGE:154 DAYS												
GROUP 1	1	31.1000	0.0	0.0	0.0	1.000	-2.00	1	-3.60	1.00	0.175	
GROUP 2	2	41.3500	4.030	2.850								
UCT161 1-CONTROL 2-EXPOSURE AGE:161 DAYS												
GROUP 1	2	39.5500	12.799	9.050	16.14	0.055	-0.64	4	-0.558	1.06	0.747	
GROUP 2	4	43.4000	3.185	1.593								
UCT168 1-CONTROL 2-EXPOSURE AGE:168 DAYS												
GROUP 1	5	41.7800	6.877	3.076	4.90	0.085	-1.28	10	-1.13	5.18	0.310	
GROUP 2	7	45.5000	3.106	1.174								
UCT175 1-CONTROL 2-EXPOSURE AGE:175 DAYS												
GROUP 1	5	42.1400	6.641	2.970	3.86	0.139	-0.99	10	-0.99	5.49	0.460	
GROUP 2	7	44.7285	3.381	1.278								

Table A.3 (continued)

VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	T - TEST			POOLED VARIANCE ESTIMATE			SEPARATE VARIANCE ESTIMATE		
					F VALUE	2-TAIL PROB.	7 DEGREES OF FREEDOM	T VALUE	2-TAIL PROB.	7 DEGREES OF FREEDOM	T VALUE	2-TAIL PROB.	7 DEGREES OF FREEDOM
UGT182	1-CONTROL	AGE:182 DAYS											
GROUP 1	5	41.4800	5.277	2.360									
GROUP 2	7	44.5285	3.372	1.274	2.45	0.313	10	-1.23	0.247	10	-1.14	0.31	0.299
UGT196	1-CONTROL	AGE:196 DAYS											
GROUP 1	5	41.4600	6.123	2.738									
GROUP 2	7	44.0857	4.069	1.538	2.26	0.355	10	-0.90	0.398	10	-0.84	0.49	0.435
UGT203	1-CONTROL	AGE:203 DAYS											
GROUP 1	5	41.6000	6.865	3.070									
GROUP 2	7	43.3857	4.060	1.535	2.86	0.242	10	-0.57	0.582	10	-0.52	0.60	0.622
UGT210	1-CONTROL	AGE:210 DAYS											
GROUP 1	5	41.3200	6.505	2.905									
GROUP 2	7	42.8428	4.123	1.558	2.40	0.305	10	-0.50	0.628	10	-0.46	0.628	0.661
UGT217	1-CONTROL	AGE:217 DAYS											
GROUP 1	5	41.3800	6.741	3.015									
GROUP 2	7	44.0599	4.038	1.526	2.79	0.253	10	-0.88	0.400	10	-0.80	0.05	0.452
UGT224	1-CONTROL	AGE:224 DAYS											
GROUP 1	5	42.0000	7.441	3.328									
GROUP 2	7	44.5143	3.807	1.439	3.82	0.141	10	-0.76	0.464	10	-0.68	5.51	0.520
UGT231	1-CONTROL	AGE:231 DAYS											
GROUP 1	5	43.0000	6.593	2.948									
GROUP 2	7	44.5143	4.375	1.653	2.27	0.353	10	-0.48	0.641	10	-0.45	6.48	0.670

Table A.3 (continued)

T-TESTS FOR F4-2 MALES

VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	T - TEST			POOLED VARIANCE ESTIMATE			SEPARATE VARIANCE ESTIMATE		
					F VALUE	2-TAIL PROB.		T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.
UGT238													
GROUP 1	5	41.6600	6.471	2.894									
GROUP 2	7	43.2571	4.650	1.758	1.94	0.448		-0.50	10	0.628	-0.47	6.87	0.651

Table A.3 (continued)

T-TEST FOR F4-2 MALES

T - T E S T										
VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	POOLED VARIANCE ESTIMATE			SEPARATE VARIANCE ESTIMATE		
					F VALUE	2-TAIL PROB.	T VALUE	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.
UGT301 1-CONTROL 2-EXPOSURE AGE:300 DAYS										
GROUP 1	4	42.2750	6.380	3.190	2.17	0.468	-1.22	-1.16	5.10	0.297
GROUP 2	5	46.6200	4.328	1.936						
UGT308 1-CONTROL 2-EXPOSURE AGE:300 DAYS										
GROUP 1	4	42.7000	7.016	3.508	3.03	0.312	-1.38	-1.29	4.55	0.252
GROUP 2	5	47.8000	4.029	1.802						
UGT315 1-CONTROL 2-EXPOSURE AGE:315 DAYS										
GROUP 1	4	43.3750	7.105	3.553	3.39	0.269	-1.39	-1.30	4.40	0.264
GROUP 2	5	48.5000	3.857	1.725						
UGT322 1-CONTROL 2-EXPOSURE AGE:322 DAYS										
GROUP 1	4	43.2000	8.144	4.072	3.91	0.221	-1.29	-1.19	4.22	0.298
GROUP 2	5	48.5400	4.118	1.842						
UGT329 1-CONTROL 2-EXPOSURE AGE:329 DAYS										
GROUP 1	4	45.8000	7.237	3.615	3.43	0.265	-1.35	-1.25	4.38	0.278
GROUP 2	5	48.8400	3.909	1.748						

Table A.3 (continued)

T-TEST FOR F4-2 MALES

VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	T-TEST			POOLED VARIANCE ESTIMATE			SEPARATE VARIANCE ESTIMATE		
					F VALUE	2-TAIL PROB.		T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.
UCT336	1-CONTROL	AGE:336 DAYS											
GROUP 1	4	43.6500	6.910	3.455									
GROUP 2	5	48.7800	4.107	1.837	2.83	0.341		-1.39	7	0.206	-1.31	4.66	0.247
UCT343	1-CONTROL	AGE:343 DAYS											
GROUP 1	4	43.7500	7.371	3.686									
GROUP 2	5	48.7200	3.978	1.779	3.43	0.264		-1.30	7	0.234	-1.21	4.38	0.291
UCT350	1-CONTROL	AGE:350 DAYS											
GROUP 1	4	42.6250	7.629	3.814									
GROUP 2	5	48.3000	4.479	2.003	2.90	0.330		-1.40	7	0.204	-1.32	4.62	0.245

Table A.4 Body masses for F4-2 female mice.

T-TESTS FOR F4-2 FEMALES

GROUP 1 - STATUS GROUP 2 - STATUS		T - T E S T									
VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F VALUE	2-TAIL PROB.	POOLED VARIANCE ESTIMATE		T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.
AGE: 7 DAYS											
UGT7	11	5.8182	1.121	0.338	3.86	0.054	1.16	19	0.260	15.14	0.250
GROUP 1	11										
GROUP 2	12	5.3600	0.570	0.180							
AGE: 8 DAYS											
UGT8	11	6.5364	1.172	0.353	2.88	0.126	1.17	19	0.258	16.43	0.249
GROUP 1	11										
GROUP 2	10	6.0400	0.690	0.218							
AGE: 9 DAYS											
UGT9	11	7.3091	1.289	0.389	2.18	0.255	1.17	19	0.256	17.64	0.248
GROUP 1	11										
GROUP 2	10	6.7400	0.972	0.276							
AGE: 12 DAYS											
UGT12	9	9.5111	1.362	0.454	5.37	0.039	1.08	15	0.293	11.14	0.285
GROUP 1	9										
GROUP 2	8	8.9500	0.588	0.208							
AGE: 13 DAYS											
UGT13	9	9.9444	1.535	0.512	3.09	0.155	0.76	15	0.459	12.92	0.446
GROUP 1	9										
GROUP 2	8	9.4750	0.873	0.309							
AGE: 14 DAYS											
UGT14	11	10.5182	1.747	0.527	1.62	0.481	0.85	19	0.405	18.64	0.400
GROUP 1	11										
GROUP 2	10	9.9300	1.373	0.434							
AGE: 15 DAYS											
UGT15	11	11.2000	1.817	0.548	1.64	0.470	0.82	19	0.421	18.61	0.415
GROUP 1	11										
GROUP 2	10	10.6100	1.419	0.449							

Table A.4 (continued)

VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F VALUE	F VALUE	DEGREES OF FREEDOM	F VALUE	DEGREES OF FREEDOM	STATISTICAL PROB.
UG-76	11	AGE:16 DAYS 11.3000	1.754	0.523	1.44	0.593	15	0.408	18.87	0.403
GROUP 2	10	11.2000	1.461	0.462						
UG-76	11	AGE:120 DAYS 13.5364	1.891	0.576	1.85	0.370	19	0.290	18.26	0.283
GROUP 2	10	12.7400	1.391	0.440						

Table A.4 (continued)

T-TESTS FOR F4-2 FEMALES

GROUP 1 - STATUS GROUP 2 - STATUS		T - T E S T										
VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F VALUE	2-TAIL PROB.	POOLED VARIANCE ESTIMATE		T DEGREES OF 2-TAIL VALUE FREEDOM		SEPARATE VARIANCE ESTIMATE	
							VALUE	PROB.	VALUE	PROB.	T VALUE	DEGREES OF FREEDOM PROB.
UGT21 1-CONTROL 2-EXPOSURE AGE:21 DAYS												
GROUP 1	11	13.9727	2.057	0.620	2.29	0.229	1.11	19	0.282	1.13	17.45	0.274
GROUP 2	10	13.1200	1.360	0.430								
UGT22 1-CONTROL 2-EXPOSURE AGE:22 DAYS												
GROUP 1	11	14.3182	1.945	0.586	2.03	0.302	1.27	19	0.221	1.29	17.93	0.214
GROUP 2	10	13.3800	1.365	0.432								
UGT23 1-CONTROL 2-EXPOSURE AGE:23 DAYS												
GROUP 1	11	14.7182	1.906	0.575	1.91	0.344	1.05	19	0.308	1.07	18.15	0.301
GROUP 2	10	13.9500	1.379	0.436								
UGT26 1-CONTROL 2-EXPOSURE AGE:26 DAYS												
GROUP 1	8	16.1125	1.586	0.561	3.87	0.095	1.43	14	0.174	1.43	10.39	0.183
GROUP 2	8	15.2125	0.806	0.285								
UGT27 1-CONTROL 2-EXPOSURE AGE:27 DAYS												
GROUP 1	11	16.3727	1.698	0.512	1.44	0.597	0.86	19	0.399	0.87	18.88	0.394
GROUP 2	10	15.7800	1.416	0.448								
UGT28 1-CONTROL 2-EXPOSURE AGE:28 DAYS												
GROUP 1	9	16.6889	1.484	0.495	3.66	0.104	0.34	15	0.736	0.36	12.34	0.728
GROUP 2	8	16.4875	0.775	0.274								
UGT29 1-CONTROL 2-EXPOSURE AGE:29 DAYS												
GROUP 1	10	17.8600	2.047	0.647	1.80	0.420	1.20	17	0.246	1.22	16.48	0.240
GROUP 2	9	16.8555	1.527	0.509								

Table A.4 (continued)

GROUP	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F VALUE	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.
UGT30											
GROUP 1	10	18.4600	1.838	0.581	1.47	0.601	1.06	17	1.07	16.89	0.298
GROUP 2	9	17.6333	1.518	0.506							
UGT33											
GROUP 1	8	19.4000	2.263	0.800	3.76	0.128	0.06	13	0.06	10.75	0.951
GROUP 2	7	19.3428	1.167	0.441							

Table A.4 (continued)

-TESTS FOR F4-2 FEMALES

GROUP 1 - STATUS GROUP 2 - STATUS		T - T E S T		P O O L E D V A R I A N C E E S T I M A T E		S E P A R A T E V A R I A N C E E S T I M A T E					
VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F VALUE	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.
UCT35	1-CONTROL	2-EXPOSURE	AGE:35 DAYS								
GROUP 1	10	20.8400	2.214	0.700	1.23	0.782					
GROUP 2	9	20.2555	1.997	0.666			0.60	17	0.555	17.00	0.553
UCT36	1-CONTROL	2-EXPOSURE	AGE:36 DAYS								
GROUP 1	10	21.2500	2.059	0.651	1.24	0.770					
GROUP 2	9	20.7555	1.847	0.616			0.55	17	0.590	17.00	0.588
UCT37	1-CONTROL	2-EXPOSURE	AGE:37 DAYS								
GROUP 1	10	21.6700	2.397	0.758	1.92	0.370					
GROUP 2	9	20.8333	1.729	0.576			0.86	17	0.400	16.29	0.393
UCT40	1-CONTROL	2-EXPOSURE	AGE:40 DAYS								
GROUP 1	8	21.7500	2.396	0.847	2.66	0.254					
GROUP 2	7	21.0286	1.469	0.555			0.69	13	0.503	11.77	0.490
UCT41	1-CONTROL	2-EXPOSURE	AGE:41 DAYS								
GROUP 1	10	22.7800	2.832	0.896	3.31	0.106					
GROUP 2	9	21.2000	1.557	0.519			1.48	17	0.157	14.25	0.149
UCT42	1-CONTROL	2-EXPOSURE	AGE:42 DAYS								
GROUP 1	10	23.0000	2.966	0.938	2.76	0.168					
GROUP 2	9	21.4555	1.787	0.596			1.35	17	0.193	14.98	0.185
UCT43	1-CONTROL	2-EXPOSURE	AGE:43 DAYS								
GROUP 1	10	23.0800	3.133	0.991	2.48	0.215					
GROUP 2	9	21.4222	1.990	0.663			1.36	17	0.192	15.39	0.185

Table A.4 (continued)

T-TESTS FOR F4-2 FEMALES

GROUP 1 - STATUS		T - T E S T		P O O L E D V A R I A N C E E S T I M A T E		D E G R E E S O F F R E E D O M		T V A L U E		D E G R E E S O F F R E E D O M		T V A L U E		D E G R E E S O F F R E E D O M		P R O B .	
GROUP 2 - STATUS		V A R I A B L E		N U M B E R O F C A S E S		M E A N		S T A N D A R D D E V I A T I O N		S T A N D A R D E R R O R		F V A L U E		2 - T A I L P R O B .		P O O L E D V A R I A N C E E S T I M A T E	
JCT47		1-CONTROL 2-EXPOSURE AGE:47 DAYS		8		23.2500		2.571		0.909		2.19		0.359		1.02	
GROUP 1																0.325	
GROUP 2				7		22.0714		1.738		0.657						1.05	
																12.31	
																0.314	
JCT48		1-CONTROL 2-EXPOSURE AGE:48 DAYS		9		23.3875		2.431		0.860		3.16		0.182		0.74	
GROUP 1																0.471	
GROUP 2				7		22.6143		1.368		0.517						0.77	
																11.26	
																0.457	
JCT49		1-CONTROL 2-EXPOSURE AGE:49 DAYS		10		24.3000		3.304		1.045		4.92		0.035		1.35	
GROUP 1																0.194	
GROUP 2				9		22.6778		1.490		0.497						1.40	
																12.79	
																0.184	
JCT50		1-CONTROL 2-EXPOSURE AGE:50 DAYS		10		24.5200		3.115		0.985		3.06		0.130		1.32	
GROUP 1																0.204	
GROUP 2				9		22.9556		1.781		0.594						1.36	
																14.56	
																0.194	
JCT51		1-CONTROL 2-EXPOSURE AGE:51 DAYS		10		25.0400		3.121		0.987		2.07		0.319		1.42	
GROUP 1																0.173	
GROUP 2				9		23.2667		2.170		0.723						1.45	
																16.05	
																0.167	
JCT55		1-CONTROL 2-EXPOSURE AGE:55 DAYS		10		26.6000		3.877		1.226		2.76		0.168		1.56	
GROUP 1																0.138	
GROUP 2				9		24.2778		2.333		0.778						1.60	
																14.97	
																0.131	
JCT56		1-CONTROL 2-EXPOSURE AGE:56 DAYS		10		27.6000		4.034		1.276		2.93		0.144		2.06	
GROUP 1																0.055	
GROUP 2				9		24.4333		2.355		0.785						2.11	
																14.73	
																0.052	

Table A.4 (continued)

VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F VALUE	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.
UCT57	1-CONTROL 2-EXPOSURE AGE:57 DAYS										
GROUP 1	10	27.8800	4.864	1.538	4.96	0.034	1.55	17	2.131	1.65	0.124
GROUP 2	9	25.0778	2.183	0.728							
UCT58	1-CONTROL 2-EXPOSURE AGE:58 DAYS										
GROUP 1	10	28.1100	5.157	1.631	3.39	0.100	1.62	17	0.124	1.67	0.118
GROUP 2	5	24.9778	2.802	0.934							

Table A.4 (continued)

VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F VALUE	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.
UGT72												
GROUP 1	8	30.5000	4.651	1.645								
GROUP 2	8	29.0125	3.123	1.104	2.22	0.315	0.75	14	0.465	0.75	12.25	0.467
UGT72												
GROUP 1	8	31.8000	4.472	1.581								
GROUP 2	8	29.3875	3.290	1.163	1.65	0.437	1.23	14	0.239	1.23	12.86	0.241

Table A.4 (continued)

GROUP 1 - STATUS		T - T E S T									
GROUP 2 - STATUS											
VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F VALUE	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.

UGT76	1-CONTROL 2-EXPOSURE AGE:76 DAYS										
GROUP 1	8	31.9625	4.859	1.712	2.20	0.320	1.27	14	0.224	1.27	0.227
GROUP 2	8	29.3250	3.275	1.158							

UGT77	1-CONTROL 2-EXPOSURE AGE:77 DAYS										
GROUP 1	8	31.9875	4.674	1.652	2.46	0.257	1.22	14	0.243	1.22	0.246
GROUP 2	8	29.6000	2.978	1.053							

UGT84	1-CONTROL 2-EXPOSURE AGE:84 DAYS										
GROUP 1	8	33.7625	5.395	1.908	3.48	0.122	0.85	14	0.407	0.85	0.411
GROUP 2	8	31.9125	2.892	1.022							

UGT91	1-CONTROL 2-EXPOSURE AGE:91 DAYS										
GROUP 1	8	35.9875	5.086	1.798	1.68	0.551	0.87	14	0.398	0.87	0.399
GROUP 2	8	33.9875	4.022	1.422							

UGT99	1-CONTROL 2-EXPOSURE AGE:99 DAYS										
GROUP 1	7	37.3285	4.728	1.787	2.15	0.374	0.50	12	0.625	0.50	0.626
GROUP 2	7	36.2428	3.224	1.218							

UGT105	1-CONTROL 2-EXPOSURE AGE:105 DAYS										
GROUP 1	5	38.4800	5.331	2.384	3.72	0.231	0.80	8	0.448	0.80	0.456
GROUP 2	5	36.3400	2.763	1.235							

UGT112	1-CONTROL 2-EXPOSURE AGE:112 DAYS										
GROUP 1	6	40.5166	5.780	2.360	5.18	0.231	0.91	10	0.383	0.91	0.389
GROUP 2	6	38.0500	3.244	1.324							

Table A.4 (continued)

VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F VALUE	2-TAIL PROB.	7 VALUE	DEGREES OF FREEDOM	7 VALUE	DEGREES OF FREEDOM	2-TAIL PROB.
UCT119	1-CONTROL	2-EXPOSURE	AGE:1119 DAYS								
GROUP 1	6	39.4667	4.922	2.009	2.12	0.429	0.53	10	0.685	8.86	0.607
GROUP 2	6	38.1667	3.380	1.380							
UCT126	1-CONTROL	2-EXPOSURE	AGE:126 DAYS								
GROUP 1	6	40.3500	4.201	1.715	1.41	0.715	0.45	10	0.665	9.72	0.665
GROUP 2	6	39.3500	3.537	1.444							
UCT133	1-CONTROL	2-EXPOSURE	AGE:133 DAYS								
GROUP 1	3	40.8667	4.481	2.587	11.33	0.162	0.98	4	0.384	2.35	0.432
GROUP 2	3	38.2333	1.331	0.769							
UCT140	1-CONTROL	2-EXPOSURE	AGE:140 DAYS								
GROUP 1	3	42.0667	4.179	2.413	30.52	0.063	1.84	4	0.140	2.13	0.208
GROUP 2	3	37.5667	0.756	0.437							
UCT147	1-CONTROL	2-EXPOSURE	AGE:147 DAYS								
GROUP 1	3	42.5000	3.465	2.001	11.97	0.154	2.96	4	0.042	2.33	0.098
GROUP 2	3	36.3333	1.002	0.578							
UCT154	1-CONTROL	2-EXPOSURE	AGE:154 DAYS								
GROUP 1	3	44.0333	3.669	2.118	3.50	0.444	2.62	4	0.059	3.06	0.079
GROUP 2	3	37.7333	1.960	1.132							
UCT161	1-CONTROL	2-EXPOSURE	AGE:161 DAYS								
GROUP 1	4	44.4500	4.413	2.207	2.06	0.568	1.81	6	0.120	5.36	0.130
GROUP 2	4	36.5750	3.074	1.537							

Table A.4 (continued)

GROUP 1 - STATUS		GROUP 2 - STATUS		Pooled Variance Estimate		Separate Variance Estimate					
Variable	Number of Cases	Mean	Standard Deviation	Standard Error	F Value	2-Tail Prob.	T Value	Degrees of Freedom	2-Tail Prob.	T Value	Degrees of Freedom
UCT168 1-CONTROL 2-EXPOSURE AGE:168 DAYS											
GROUP 1	7	44.3999	3.140	1.187	2.44	0.362	1.40	12	0.188	1.40	10.21
GROUP 2	7	41.3285	4.903	1.853							0.193
UCT175 1-CONTROL 2-EXPOSURE AGE:175 DAYS											
GROUP 1	7	44.5000	2.918	1.103	1.86	0.470	1.98	12	0.071	1.98	11.01
GROUP 2	7	40.8000	3.976	1.503							0.073
UCT182 1-CONTROL 2-EXPOSURE AGE:182 DAYS											
GROUP 1	7	43.7571	3.686	1.393	1.66	0.554	1.06	12	0.312	1.06	11.31
GROUP 2	7	41.3571	4.747	1.794							0.313
UCT189 1-CONTROL 2-EXPOSURE AGE:189 DAYS											
GROUP 1	6	40.6000	3.758	1.531	1.73	0.563	0.49	10	0.636	0.49	9.33
GROUP 2	6	39.3667	4.931	2.013							0.637
UCT196 1-CONTROL 2-EXPOSURE AGE:196 DAYS											
GROUP 1	6	42.9500	3.131	1.278	1.75	0.557	1.87	11	0.088	1.91	10.87
GROUP 2	7	39.0857	4.139	1.564							0.082
UCT203 1-CONTROL 2-EXPOSURE AGE:203 DAYS											
GROUP 1	7	42.1571	3.278	1.239	1.50	0.636	1.90	12	0.082	1.90	11.54
GROUP 2	7	38.4428	4.011	1.516							0.082
UCT210 1-CONTROL 2-EXPOSURE AGE:210 DAYS											
GROUP 1	7	41.2142	3.973	1.502	1.12	0.894	1.78	12	0.101	1.78	11.96
GROUP 2	7	37.5428	3.754	1.419							0.101

Table A.4 (continued)

VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F VALUE	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.
UGT217	1-CONTROL 7	AGE:12:7 DAYS										
GROUP 1	7	42.5143	5.091	1.924	2.27	0.341	1.17	12	0.265	1.17	10.43	0.269
GROUP 2	7	39.8143	3.378	1.277								
UGT224	1-CONTROL 7	AGE:1224 DAYS										
GROUP 1	7	43.2285	5.244	1.982	1.81	0.490	1.00	12	0.337	1.00	11.08	0.339
GROUP 2	7	40.7571	3.902	1.475								
UGT231	1-CONTROL 7	AGE:231 DAYS										
GROUP 1	7	43.5428	5.253	1.985	1.03	0.972	1.16	12	0.267	1.16	12.00	0.267
GROUP 2	7	40.3000	5.175	1.956								
UGT238	1-CONTROL 7	AGE:1238 DAYS										
GROUP 1	7	43.0857	4.927	1.862	1.13	0.883	1.05	12	0.314	1.05	11.95	0.314
GROUP 2	7	40.2285	5.246	1.983								
UGT245	1-CONTROL 7	AGE:245 DAYS										
GROUP 1	7	43.8285	5.184	1.959	1.24	0.800	1.28	12	0.224	1.28	11.86	0.224
GROUP 2	7	40.0714	5.776	2.183								
UGT252	1-CONTROL 6	AGE:1252 DAYS										
GROUP 1	6	45.6666	5.487	2.240	1.14	0.886	1.28	10	0.229	1.28	9.95	0.229
GROUP 2	6	41.7333	5.130	2.094								

Table A.4 (continued)

T-TEST FOR F4-2 FEMALES

GROUP 1 - STATUS GROUP 2 - STATUS		T - T E S T									
VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F VALUE	2-TAIL PROB.	* POOLED VARIANCE ESTIMATE *		* SEPARATE VARIANCE ESTIMATE *		
							VALUE	DEGREES OF FREEDOM	VALUE	DEGREES OF FREEDOM	
UGT301 1-CONTROL 2-EXPOSURE AGE:301 DAYS											
GROUP 1	5	49.0600	5.382	2.407	2.06	0.502	0.57	8	0.522	7.15	
GROUP 2	5	46.2400	7.718	3.451						0.524	
UGT308 1-CONTROL 2-EXPOSURE AGE:308 DAYS											
GROUP 1	5	50.0600	3.940	1.762	2.75	0.351	0.64	8	0.541	6.57	
GROUP 2	5	47.8800	6.534	2.922						0.543	
UGT315 1-CONTROL 2-EXPOSURE AGE:315 DAYS											
GROUP 1	5	50.4200	4.032	1.803	3.09	0.300	0.41	8	0.692	6.34	
GROUP 2	5	48.9200	7.086	3.169						0.695	
UGT322 1-CONTROL 2-EXPOSURE AGE:322 DAYS											
GROUP 1	5	50.9200	3.808	1.703	3.20	0.287	0.56	8	0.590	6.28	
GROUP 2	5	48.9600	6.808	3.045						0.595	
UGT329 1-CONTROL 2-EXPOSURE AGE:329 DAYS											
GROUP 1	5	51.1800	3.278	1.466	3.03	0.308	0.54	8	0.602	6.38	
GROUP 2	5	49.5800	5.709	2.553						0.606	
UGT336 1-CONTROL 2-EXPOSURE AGE:336 DAYS											
GROUP 1	5	50.5000	4.013	1.795	2.01	0.515	0.35	8	0.733	7.19	
GROUP 2	5	49.4000	5.690	2.545						0.734	
UGT343 1-CONTROL 2-EXPOSURE AGE:343 DAYS											
GROUP 1	5	51.5800	3.568	1.596	2.40	0.417	0.56	8	0.588	6.84	
GROUP 2	5	49.9200	5.527	2.472						0.590	

Table A.5 Body masses for F1-2 male mice.

T-TEST FOR F1-2 MALES

GROUP 1 - STATUS		GROUP 2 - STATUS		T - T E S T		P O O L E D V A R I A N C E E S T I M A T E		S E P A R A T E V A R I A N C E E S T I M A T E	
VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F	2-TAIL VALUE PROB.	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.
UGT7 1-CONTROL 2-EXPOSURE AGE:7 DAYS									
GROUP 1	13	5.9538	0.452	0.125	2.00	0.230	-0.00	22	0.998
GROUP 2	11	5.9545	0.652	0.197					
UGT8 1-CONTROL 2-EXPOSURE AGE:8 DAYS									
GROUP 1	13	6.3308	0.480	0.133	1.85	0.312	0.02	22	0.988
GROUP 2	11	6.3273	0.653	0.197					
UGT9 1-CONTROL 2-EXPOSURE AGE:9 DAYS									
GROUP 1	13	6.9077	0.501	0.139	1.15	0.839	-0.78	22	0.442
GROUP 2	11	7.0636	0.468	0.141					
UGT12 1-CONTROL 2-EXPOSURE AGE:12 DAYS									
GROUP 1	13	8.6769	0.332	0.092	1.01	0.997	-1.31	22	0.204
GROUP 2	11	8.8545	0.330	0.089					
UGT13 1-CONTROL 2-EXPOSURE AGE:13 DAYS									
GROUP 1	13	8.9385	0.421	0.117	1.28	0.701	-1.43	22	0.166
GROUP 2	11	9.1727	0.372	0.112					
UGT14 1-CONTROL 2-EXPOSURE AGE:14 DAYS									
GROUP 1	13	9.1309	0.556	0.154	1.28	0.707	0.23	22	0.823
GROUP 2	11	9.0818	0.492	0.148					
UGT19 1-CONTROL 2-EXPOSURE AGE:19 DAYS									
GROUP 1	13	10.4461	1.251	0.347	2.57	0.144	-1.44	22	0.164
GROUP 2	11	11.0727	0.780	0.235					

Table A.5 (continued)

VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F VALUE	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.
VCT20 1-CONTROL 2-EXPOSURE AGE:20 DAYS											
GROUP 1	13	11.0692	1.393	0.386	1.34	0.649	-0.82	22	0.421	21.98	0.415
GROUP 2	11	11.5091	1.202	0.362							
VCT21 1-CONTROL 2-EXPOSURE AGE:21 DAYS											
GROUP 1	9	12.4778	1.105	0.358	1.73	0.462	0.05	14	0.957	10.94	0.959
GROUP 2	7	12.4429	1.455	0.550							
VCT22 1-CONTROL 2-EXPOSURE AGE:22 DAYS											
GROUP 1	13	13.1538	1.316	0.365	1.09	0.899	-0.90	22	0.380	21.63	0.378
GROUP 2	11	13.6273	1.258	0.379							

Table A.5 (continued)

VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F VALUE	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.
UCT34	1-CONTROL 2-EXPOSURE AGE:34 DAYS											
GROUP 1	12	23.2583	1.247	0.360	1.82	0.348	-0.02	20	0.985	-0.02	16.34	0.986
GROUP 2	10	23.2700	1.680	0.531								
UCT35	1-CONTROL 2-EXPOSURE AGE:35 DAYS											
GROUP 1	12	23.0750	1.143	0.330	2.23	0.210	-0.30	20	0.765	-0.29	15.24	0.774
GROUP 2	10	23.2600	1.707	0.540								
UCT36	1-CONTROL 2-EXPOSURE AGE:36 DAYS											
GROUP 1	12	23.7083	1.107	0.319	2.15	0.230	-0.17	20	0.864	-0.17	15.42	0.869
GROUP 2	10	23.8100	1.624	0.514								
UCT37	1-CONTROL 2-EXPOSURE AGE:37 DAYS											
GROUP 1	12	23.8750	1.476	0.426	1.67	0.420	-0.56	20	0.580	-0.55	16.82	0.590
GROUP 2	10	24.2800	1.905	0.602								

Table A.5 (continued)

GROUP 1 - STATUS		GROUP 2 - STATUS		TEST		Pooled Variance Estimate		Separate Variance Estimate	
Variable	Number of Cages	Mean	Standard Deviation	Standard Error	F 2-Tail Value Prob.	T Value	Degrees of Freedom	T Value	Degrees of Freedom
UCT40 1-CONTROL 2-EXPOSURE AGE:40 DAYS									
GROUP 1	12	25.2500	1.791	0.517	1.00	1.000	20	-0.03	19.29
GROUP 2	10	25.2700	1.791	0.566					
UCT41 1-CONTROL 2-EXPOSURE AGE:41 DAYS									
GROUP 1	12	25.0833	1.766	0.510	1.07	0.905	20	0.11	19.05
GROUP 2	10	25.0000	1.823	0.577					
UCT42 1-CONTROL 2-EXPOSURE AGE:42 DAYS									
GROUP 1	12	25.7166	1.836	0.530	1.37	0.651	20	0.06	19.97
GROUP 2	10	25.6700	1.571	0.497					
UCT44 1-CONTROL 2-EXPOSURE AGE:44 DAYS									
GROUP 1	12	26.3750	1.897	0.548	1.04	0.932	20	-0.26	19.14
GROUP 2	10	26.5900	1.937	0.613					
UCT47 1-CONTROL 2-EXPOSURE AGE:47 DAYS									
GROUP 1	12	26.9583	2.251	0.650	1.39	0.629	20	0.32	19.09
GROUP 2	10	26.6700	1.907	0.603					
UCT49 1-CONTROL 2-EXPOSURE AGE:48 DAYS									
GROUP 1	12	27.4416	2.111	0.609	1.17	0.824	20	0.70	19.75
GROUP 2	10	26.8300	1.949	0.615					
UCT49 1-CONTROL 2-EXPOSURE AGE:45 DAYS									
GROUP 1	12	27.3083	2.123	0.613	1.79	0.392	20	0.53	19.81
GROUP 2	10	26.8000	1.587	0.502					

Table A.5 (continued)

VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F VALUE	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.
UCT50 1-CONTROL 2-EXPOSURE AGE 150 DAYS											
GROUP 1	12	27.6333	2.143	0.610	1.61	0.482	0.47	20	0.43	19.96	0.635
GROUP 2	10	27.2400	1.687	0.534							
UCT51 1-CONTROL 2-EXPOSURE AGE 151 DAYS											
GROUP 1	12	28.0250	2.243	0.648	1.09	0.914	0.79	20	0.439	19.56	0.437
GROUP 2	10	27.2800	2.150	0.680							
UGT54 1-CONTROL 2-EXPOSURE AGE 154 DAYS											
GROUP 1	12	29.3750	2.145	0.619	1.16	0.804	1.03	20	0.317	18.69	0.321
GROUP 2	10	28.4000	2.309	0.730							

Table A.5 (continued)

T-TEST FOR F1-2 MALES

GROUP 1 - STATUS		GROUP 2 - STATUS		T - TEST		POOLED VARIANCE ESTIMATE		SEPARATE VARIANCE ESTIMATE	
VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F 2-TAIL VALUE PROB.	T VALUE	DEGREES OF FREEDOM	T VALUE	DEGREES OF FREEDOM
UCT55 1-CONTROL 2-EXPOSURE AGE:55 DAYS									
GROUP 1	12	29.5249	2.226	0.643	1.06 0.996	1.02	20	0.321	0.323
GROUP 2	10	28.5400	2.297	0.726					
UCT56 1-CONTROL 2-EXPOSURE AGE:56 DAYS									
GROUP 1	12	29.5250	2.444	0.706	1.07 0.899	0.81	20	0.426	0.428
GROUP 2	10	28.6600	2.530	0.800					
UCT57 1-CONTROL 2-EXPOSURE AGE:57 DAYS									
GROUP 1	12	29.9249	2.324	0.671	1.26 0.710	0.76	20	0.458	0.464
GROUP 2	10	29.1300	2.605	0.824					
UCT58 1-CONTROL 2-EXPOSURE AGE:58 DAYS									
GROUP 1	12	30.3083	2.327	0.672	1.27 0.695	0.87	20	0.395	0.401
GROUP 2	10	29.3900	2.626	0.830					
UCT61 1-CONTROL 2-EXPOSURE AGE:61 DAYS									
GROUP 1	12	31.1333	2.838	0.819	1.49 0.525	0.84	20	0.413	0.423
GROUP 2	10	30.6099	3.405	1.096					
UCT62 1-CONTROL 2-EXPOSURE AGE:62 DAYS									
GROUP 1	12	31.5333	2.977	0.859	1.15 0.812	0.50	20	0.625	0.628
GROUP 2	10	30.8800	3.193	1.614					
UCT63 1-CONTROL 2-EXPOSURE AGE:63 DAYS									
GROUP 1	12	31.2500	2.985	0.862	1.06 0.911	0.56	20	0.579	0.581
GROUP 2	10	30.5200	3.075	0.972					

Table A.5 (continued)

VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F VALUE	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.
UGT64											
GROUP 1	12	31.8083	3.194	0.922	1.04	0.968	0.51	20	0.51	19.43	0.617
GROUP 2	10	31.1200	3.131	0.990							
UGT65											
GROUP 1	12	31.9749	2.982	0.861	1.01	1.000	0.62	20	0.62	19.34	0.544
GROUP 2	10	31.1900	2.961	0.936							
UGT68											
GROUP 1	12	32.9500	3.198	0.923	1.19	0.807	0.84	20	0.84	19.78	0.406
GROUP 2	10	31.8400	2.932	0.927							

Table A.5 (continued)

T-TEST FOR F1-2 MALES

GROUP 1 - STATUS		T - TEST		POOLED VARIANCE ESTIMATE		SEPARATE VARIANCE ESTIMATE	
GROUP 2 - STATUS							
VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F VALUE	2-TAIL PROB.	T VALUE
WGT69	1-CONTROL 2-EXPOSURE AGE:69 DAYS						
GROUP 1	12	33.4916	3.148	0.909	1.15	0.841	0.74
GROUP 2	10	32.5200	2.928	0.926			0.75
WGT70	1-CONTROL 2-EXPOSURE AGE:70 DAYS						
GROUP 1	12	33.5666	3.029	0.874	1.09	0.914	0.59
GROUP 2	10	32.8100	2.903	0.918			0.60
WGT71	1-CONTROL 2-EXPOSURE AGE:71 DAYS						
GROUP 1	11	34.2000	3.057	0.922	1.10	0.873	1.03
GROUP 2	9	32.7555	3.203	1.068			1.02
WGT72	1-CONTROL 2-EXPOSURE AGE:72 DAYS						
GROUP 1	11	34.4454	2.996	0.903	1.17	0.803	1.22
GROUP 2	9	32.7444	3.236	1.079			1.21
WGT75	1-CONTROL 2-EXPOSURE AGE:75 DAYS						
GROUP 1	11	34.9181	3.213	0.969	1.00	0.965	0.68
GROUP 2	8	33.9000	3.215	1.137			0.68
WGT76	1-CONTROL 2-EXPOSURE AGE:76 DAYS						
GROUP 1	11	34.7000	3.245	0.979	1.01	0.954	0.66
GROUP 2	8	33.7000	3.265	1.111			0.66
WGT77	1-CONTROL 2-EXPOSURE AGE:77 DAYS						
GROUP 1	11	34.6727	3.169	0.955	1.11	0.920	0.88
GROUP 2	8	33.4000	3.011	1.065			0.89

Table A.5 (continued)

UNABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F VALUE	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.
UCT78	1-CONTROL 2-EXPOSURE AGE:78 DAYS											
GROUP 1	11	34.6727	3.816	0.909	1.05	0.910	0.96	17	0.350	0.96	15.00	0.354
GROUP 2	8	33.3125	3.094	1.094								
UCT79	1-CONTROL 2-EXPOSURE AGE:79 DAYS											
GROUP 1	11	35.0818	3.057	0.922	1.01	1.000	0.82	17	0.425	0.82	15.30	0.427
GROUP 2	8	33.9250	3.038	1.074								
UCT82	1-CONTROL 2-EXPOSURE AGE:82 DAYS											
GROUP 1	11	35.8181	3.206	0.994	1.27	0.705	1.06	17	0.302	1.04	14.07	0.315
GROUP 2	8	34.1000	3.718	1.314								

Table A.5 (continued)

T-TEST FOR F1-2 MALES

GROUP 1 - STATUS		T - T E S T		P O O L E D V A R I A N C E E S T I M A T E		S E P A R A T E V A R I A N C E E S T I M A T E	
VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F	2-TAIL VALUE	PROB.
UCTB3	11	36.1088	3.315	1.000	1.74	0.413	0.291
GROUP 2	8	34.2750	4.370	1.545			
UCTB4	11	36.4818	3.411	1.028	1.83	0.373	0.304
GROUP 2	8	34.5375	4.613	1.631			
UCTB8	11	36.9598	3.949	1.191	1.06	0.905	0.951
GROUP 2	8	36.8750	4.061	1.436			
UCTB9	10	36.9259	3.881	1.227	1.20	0.853	0.396
GROUP 2	7	38.5428	3.542	1.338			
UCT112	10	37.7959	3.530	1.116	1.34	0.665	0.340
GROUP 2	7	39.2285	4.086	1.544			
UCT119	10	37.7000	4.359	1.379	1.17	0.788	0.284
GROUP 2	6	40.2833	4.715	1.925			
UCT126	10	39.1199	4.063	1.285	1.38	0.640	0.335
GROUP 2	7	41.2571	4.765	1.801			

Table A.5 (continued)

VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F VALUE	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.
UG1133	1-CONTROL 2-EXPOSURE AGE:1133 DAYS								
GROUP 1	10	40.2800	3.832	1.212	2.20	0.288	-0.45	14	0.663
GROUP 2	6	41.3333	5.681	2.319				7.78	0.698
UG1140	1-CONTROL 2-EXPOSURE AGE:1140 DAYS								
GROUP 1	10	40.6500	4.493	1.421	1.84	1.000	-0.70	14	0.494
GROUP 2	6	42.2666	4.400	1.796				10.85	0.495
UG1147	1-CONTROL 2-EXPOSURE AGE:1147 DAYS								
GROUP 1	10	41.0499	4.812	1.269	1.22	0.749	-0.51	14	0.617
GROUP 2	6	42.1500	4.430	1.808				9.81	0.629

Table A.5 (continued)

GROUP 1 - STATUS		GROUP 2 - STATUS		T - TEST		P O O L E D V A R I A N C E E S T I M A T E		S E P A R A T E V A R I A N C E E S T I M A T E			
VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F VALUE	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.
UCT161 1-CONTROL 2-EXPOSURE AGE:161 DAYS											
GROUP 1	10	41.9500	3.775	1.194	1.34	0.664	-0.94	14	0.365	-0.90	0.391
GROUP 2	6	43.8833	4.364	1.781							
UCT168 1-CONTROL 2-EXPOSURE AGE:168 DAYS											
GROUP 1	10	42.6499	3.732	1.180	1.20	0.884	-1.09	14	0.295	-1.12	0.289
GROUP 2	6	44.6833	3.404	1.390							
UCT175 1-CONTROL 2-EXPOSURE AGE:175 DAYS											
GROUP 1	10	42.6499	4.170	1.319	1.38	0.754	-1.05	14	0.311	-1.10	0.294
GROUP 2	6	44.8000	3.546	1.448							
UCT182 1-CONTROL 2-EXPOSURE AGE:182 DAYS											
GROUP 1	10	42.7299	3.720	1.176	1.00	1.000	-1.21	14	0.247	-1.21	0.252
GROUP 2	6	45.0500	3.716	1.517							
UCT189 1-CONTROL 2-EXPOSURE AGE:189 DAYS											
GROUP 1	10	42.7800	4.236	1.339	1.46	0.706	-1.12	14	0.282	-1.18	0.263
GROUP 2	6	45.0833	3.505	1.431							

Table A.5 (continued)

GROUP 1 - STATUS		T - TEST										
GROUP 2 - STATUS												
VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F VALUE	2-TAIL PROB.	POOLED VARIANCE ESTIMATE			SEPARATE VARIANCE ESTIMATE		
							T VALUE	DEGREES OF FREEDOM	PROB.	T VALUE	DEGREES OF FREEDOM	PROB.
UCT196	1-CONTROL	AGE:196 DAYS										
GROUP 1	10	43.4900	4.076	1.289	1.37	0.764	-0.91	14	0.377	-0.95	12.06	0.360
GROUP 2	6	45.3167	3.486	1.423								
UCT203	1-CONTROL	AGE:203 DAYS										
GROUP 1	10	43.8300	3.900	1.233	1.13	0.939	-0.66	14	0.519	-0.67	11.23	0.515
GROUP 2	6	45.1333	3.662	1.495								
UCT210	1-CONTROL	AGE:210 DAYS										
GROUP 1	10	44.2700	4.073	1.288	1.41	0.739	-0.91	14	0.378	-0.95	12.18	0.360
GROUP 2	6	46.0833	3.435	1.402								
UCT217	1-CONTROL	AGE:217 DAYS										
GROUP 1	10	44.7699	4.037	1.277	6.07	0.098	-0.34	13	0.739	-0.44	12.79	0.666
GROUP 2	5	45.4200	1.639	0.733								
UCT224	1-CONTROL	AGE:224 DAYS										
GROUP 1	10	44.8399	4.241	1.341	1.71	0.577	-1.02	14	0.325	-1.09	12.94	0.294
GROUP 2	6	46.9000	3.246	1.325								

Table A.5 (continued)

GROUP 1 - STATUS GROUP 2 - STATUS		T - T E S T									
VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F VALUE	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.
UGT231 1-CONTROL 2-EXPOSURE AGE:231 DAYS											
GROUP 1	10	44.3400	4.587	1.450	1.99	0.463	-3.87	14	0.401	13.44	0.361
GROUP 2	5	46.2000	3.249	1.326							
UGT238 1-CONTROL 2-EXPOSURE AGE:238 DAYS											
GROUP 1	10	44.6899	4.326	1.368	1.28	0.824	-0.58	14	0.571	11.78	0.560
GROUP 2	6	45.9333	3.822	1.560							
UGT245 1-CONTROL 2-EXPOSURE AGE:245 DAYS											
GROUP 1	10	44.8199	3.895	1.232	1.00	1.000	-0.70	14	0.493	10.69	0.496
GROUP 2	6	46.2333	3.886	1.587							
UGT252 1-CONTROL 2-EXPOSURE AGE:252 DAYS											
GROUP 1	9	44.0666	3.575	1.192	1.07	0.864	-0.59	12	0.565	8.14	0.574
GROUP 2	5	45.2600	3.695	1.652							

TESTS FOR 1-2 FEMALES

GROUP 1 - STATUS		T - TEST		P O O L E D V A R I A N C E E S T I M A T E		S E P A R A T E V A R I A N C E E S T I M A T E				
U N I A B L E	N U M B E R O F C A S E S	M E A N	S T A N D A R D D E V I A T I O N	S T A N D A R D E R R O R	F	2-TAIL P R O B.	T	D E G R E E S O F F R E E D O M	T	D E G R E E S O F F R E E D O M

U C T 7	1-CONTROL 2-EXPOSURE AGE:17 DAYS									
GROUP 1	11	6.008	0.539	0.162	2.47	0.161	-1.17	22	0.255	20.57
GROUP 2	13	6.3481	0.847	0.235						0.239

U C T 8	1-CONTROL 2-EXPOSURE AGE:18 DAYS									
GROUP 1	11	6.4545	0.535	0.161	2.26	0.206	-1.05	22	0.305	20.96
GROUP 2	13	6.7538	0.805	0.223						0.290

U C T 9	1-CONTROL 2-EXPOSURE AGE:19 DAYS									
GROUP 1	11	7.0273	0.546	0.165	2.51	0.154	-0.93	22	0.364	20.50
GROUP 2	13	7.3077	0.865	0.240						0.346

U C T 12	1-CONTROL 2-EXPOSURE AGE:12 DAYS									
GROUP 1	11	8.5364	0.518	0.156	2.02	0.275	-1.46	22	0.158	21.37
GROUP 2	13	8.9231	0.736	0.204						0.147

U C T 13	1-CONTROL 2-EXPOSURE AGE:13 DAYS									
GROUP 1	11	8.7091	0.570	0.172	2.13	0.240	-1.71	22	0.102	21.19
GROUP 2	13	9.2154	0.832	0.231						0.093

U C T 14	1-CONTROL 2-EXPOSURE AGE:14 DAYS									
GROUP 1	11	8.9182	0.761	0.230	1.16	0.794	-0.71	22	0.486	20.71
GROUP 2	13	9.1308	0.706	0.196						0.489

U C T 19	1-CONTROL 2-EXPOSURE AGE:19 DAYS									
GROUP 1	11	9.8727	1.341	0.404	1.51	0.496	-2.26	22	0.034	19.31
GROUP 2	13	10.9923	1.093	0.303						0.039

Table A.6 (continued)

VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F VALUE	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	T VALUE	2-TAIL PROB.	DEGREES OF FREEDOM
UCT20	1-CONTROL 2-EXPOSURE AGE:20 DAYS										
GROUP 1	11	10.2545	1.286	0.388	1.40	0.576	-2.33	22	-2.30	0.029	19.75
GROUP 2	13	11.3846	1.088	0.302							0.032
UCT22	1-CONTROL 2-EXPOSURE AGE:22 DAYS										
GROUP 1	11	11.8727	0.922	0.278	1.66	0.430	-2.28	22	-2.33	0.033	21.87
GROUP 2	13	12.8769	1.188	0.330							0.029
UCT23	1-CONTROL 2-EXPOSURE AGE:23 DAYS										
GROUP 1	11	12.6818	0.878	0.265	2.37	0.182	-1.87	22	-1.93	0.075	20.77
GROUP 2	13	13.5692	1.351	0.375							0.067
UCT26	1-CONTROL 2-EXPOSURE AGE:26 DAYS										
GROUP 1	11	15.1636	0.989	0.298	3.80	0.043	-1.44	22	-1.52	0.163	18.48
GROUP 2	13	16.0923	1.928	0.535							0.147
UCT27	1-CONTROL 2-EXPOSURE AGE:27 DAYS										
GROUP 1	11	15.1182	1.002	0.302	2.94	0.097	-1.14	22	-1.19	0.265	19.75
GROUP 2	13	15.7923	1.718	0.477							0.246
UCT28	1-CONTROL 2-EXPOSURE AGE:28 DAYS										
GROUP 1	11	15.8909	0.723	0.218	5.67	0.010	-1.50	22	-1.60	0.147	16.65
GROUP 2	13	16.7308	1.723	0.478							0.128

Table A.6 (continued)

T-TESTS FOR F1-2 FEMALES

GROUP 1 - STATUS		GROUP 2 - STATUS		T - TEST		P - POOLED VARIANCE ESTIMATE		F - 2-TAIL		T - DEGREES OF		T - DEGREES OF	
VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F VALUE	PROB.	T VALUE	PROB.	T VALUE	PROB.	T VALUE	PROB.	
UGT29 1-CONTROL 2-EXPOSURE AGE:29 DAYS													
GROUP 1	10	16.4600	0.640	0.202	9.94	0.002	-0.84	0.414	-0.84	0.420	10.79	0.420	
GROUP 2	10	17.0200	2.017	0.638									
UGT30 1-CONTROL 2-EXPOSURE AGE:30 DAYS													
GROUP 1	10	17.2300	0.906	0.315	3.40	0.077	-0.83	0.418	-0.87	0.396	17.47	0.396	
GROUP 2	12	17.7666	1.836	0.530									
UGT33 1-CONTROL 2-EXPOSURE AGE:33 DAYS													
GROUP 1	10	18.7300	0.846	0.268	5.70	0.014	-0.31	0.761	-0.33	0.746	15.29	0.746	
GROUP 2	12	18.9417	2.020	0.583									
UGT34 1-CONTROL 2-EXPOSURE AGE:34 DAYS													
GROUP 1	10	19.0600	1.057	0.334	4.12	0.042	-0.54	0.592	-0.58	0.571	16.62	0.571	
GROUP 2	12	19.4667	2.147	0.620									
UGT35 1-CONTROL 2-EXPOSURE AGE:35 DAYS													
GROUP 1	10	19.1100	1.038	0.328	4.01	0.046	-0.17	0.866	-0.18	0.859	16.74	0.859	
GROUP 2	12	19.2333	2.077	0.600									
UGT36 1-CONTROL 2-EXPOSURE AGE:36 DAYS													
GROUP 1	10	19.6000	1.994	0.346	3.32	0.082	-0.92	0.369	-0.97	0.346	17.58	0.346	
GROUP 2	12	20.2500	1.993	0.575									
UGT37 1-CONTROL 2-EXPOSURE AGE:37 DAYS													
GROUP 1	10	19.6800	0.915	0.289	5.52	0.016	-0.61	0.550	-0.65	0.526	15.41	0.526	
GROUP 2	12	20.1250	2.150	0.621									

Table A.6 (continued)

VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F VALUE	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	T VALUE	2-TAIL PROB.	2-TAIL PROB.
UGT40	1-CONTROL 2-EXPOSURE AGE:40 DAYS										
GROUP 1	10	20.2600	0.998	0.316	4.83	0.025	-0.31	20	-0.33	0.762	0.748
GROUP 2	12	20.4917	2.194	0.633							
UGT41	1-CONTROL 2-EXPOSURE AGE:41 DAYS										
GROUP 1	10	20.3900	0.946	0.299	5.72	0.014	-0.21	20	-0.22	0.837	0.827
GROUP 2	12	20.5500	2.262	0.553							
UGT42	1-CONTROL 2-EXPOSURE AGE:42 DAYS										
GROUP 1	10	20.3000	0.727	0.230	9.08	0.003	-0.29	20	-0.31	0.777	0.761
GROUP 2	12	20.5083	2.191	0.632							
UGT44	1-CONTROL 2-EXPOSURE AGE:44 DAYS										
GROUP 1	10	20.8900	1.209	0.382	2.57	0.168	0.07	20	0.07	0.946	0.942
GROUP 2	12	20.8417	1.936	0.559							
UGT47	1-CONTROL 2-EXPOSURE AGE:47 DAYS										
GROUP 1	10	21.3500	1.119	0.354	4.25	0.038	0.24	20	0.25	0.813	0.803
GROUP 2	12	21.1583	2.307	0.666							
UGT48	1-CONTROL 2-EXPOSURE AGE:48 DAYS										
GROUP 1	10	21.7900	1.237	0.391	3.53	0.069	0.11	20	0.12	0.914	0.909
GROUP 2	12	21.7000	2.323	0.671							

Table A.6 (continued)

T-TESTS FOR F1-2 FEMALES

GROUP 1 - STATUS		T - T E S T		P O O L E D V A R I A N C E E S T I M A T E		S E P A R A T E V A R I A N C E E S T I M A T E			
VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F VALUE	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.
UGT49 1-CONTROL 2-EXPOSURE AGE:49 DAYS									
GROUP 1	10	21.5300	1.252	0.396	3.72	0.058	0.05	20	0.964
GROUP 2	12	21.4917	2.415	0.697					
UGT50 1-CONTROL 2-EXPOSURE AGE:50 DAYS									
GROUP 1	10	22.0000	1.570	0.496	2.39	0.202	0.12	20	0.905
GROUP 2	12	21.8916	2.426	0.702					
UGT51 1-CONTROL 2-EXPOSURE AGE:51 DAYS									
GROUP 1	10	22.2400	1.374	0.435	3.19	0.002	0.25	20	0.808
GROUP 2	12	22.0250	2.454	0.708					
UGT54 1-CONTROL 2-EXPOSURE AGE:54 DAYS									
GROUP 1	10	23.2200	1.048	0.332	6.62	0.000	-0.18	20	0.859
GROUP 2	12	23.3833	2.698	0.779					
UGT55 1-CONTROL 2-EXPOSURE AGE:55 DAYS									
GROUP 1	10	23.3700	1.109	0.351	6.15	0.011	-0.23	20	0.821
GROUP 2	12	23.5833	2.751	0.794					
UGT56 1-CONTROL 2-EXPOSURE AGE:56 DAYS									
GROUP 1	10	23.6900	1.210	0.383	3.69	0.060	-0.21	20	0.839
GROUP 2	12	23.8563	2.324	0.671					
UGT57 1-CONTROL 2-EXPOSURE AGE:57 DAYS									
GROUP 1	10	23.9400	1.402	0.443	3.63	0.063	0.09	20	0.932
GROUP 2	12	23.8583	2.673	0.772					

Table A.6 (continued)

VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F VALUE	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.
UGT58	1-CONTROL 2-EXPOSURE AGE:58 DAYS											
GROUP 1	10	23.8100	1.687	0.533	2.98	0.112	-0.11	20	0.913	-0.12	18.06	0.909
GROUP 2	12	23.9258	2.913	0.841								
UGT61	1-CONTROL 2-EXPOSURE AGE:61 DAYS											
GROUP 1	10	24.2300	1.405	0.444	4.60	0.030	-0.32	20	0.755	-0.34	16.14	0.741
GROUP 2	12	24.5583	3.015	0.870								
UGT62	1-CONTROL 2-EXPOSURE AGE:62 DAYS											
GROUP 1	10	24.2900	1.255	0.397	6.04	0.012	-0.52	20	0.608	-0.56	15.08	0.586
GROUP 2	12	24.8333	3.085	0.891								
UGT63	1-CONTROL 2-EXPOSURE AGE:63 DAYS											
GROUP 1	10	24.4700	1.203	0.380	6.34	0.010	-0.49	20	0.632	-0.52	14.91	0.610
GROUP 2	12	24.9666	3.027	0.874								
UGT64	1-CONTROL 2-EXPOSURE AGE:64 DAYS											
GROUP 1	10	25.2100	1.428	0.451	3.80	0.055	-0.52	20	0.609	-0.55	16.98	0.589
GROUP 2	12	25.7166	2.781	0.803								
UGT65	1-CONTROL 2-EXPOSURE AGE:65 DAYS											
GROUP 1	10	25.0700	1.481	0.463	4.60	0.028	-0.35	20	0.729	-0.37	16.06	0.713
GROUP 2	12	25.4583	3.209	0.926								
UGT68	1-CONTROL 2-EXPOSURE AGE:68 DAYS											
GROUP 1	10	25.3100	1.555	0.492	3.60	0.065	-0.82	20	0.423	-0.86	17.22	0.400
GROUP 2	12	26.1583	2.950	0.852								

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T-TESTS FOR F1-2 FEMALES

GROUP 1 - STATUS		GROUP 2 - STATUS		Pooled Variance Estimate		Separate Variance Estimate	
Variable	Number of Cases	Mean	Standard Deviation	F Value	2-Tail Prob.	T Value	Degrees of Freedom
UGT69	1-CONTROL	2-EXPOSURE	AGE:69 DAYS				
GROUP 1	10	25.8200	1.625	3.41	0.076	-0.80	20
GROUP 2	12	26.6666	3.002				
UGT70	1-CONTROL	2-EXPOSURE	AGE:70 DAYS				
GROUP 1	10	26.1400	1.517	4.80	0.026	-0.61	20
GROUP 2	12	26.8416	3.325				
UGT71	1-CONTROL	2-EXPOSURE	AGE:71 DAYS				
GROUP 1	9	26.4111	1.755	3.64	0.079	-0.59	18
GROUP 2	11	27.1454	3.350				
UGT72	1-CONTROL	2-EXPOSURE	AGE:72 DAYS				
GROUP 1	9	26.1667	1.524	5.28	0.027	-0.71	18
GROUP 2	11	27.0636	3.502				
UGT75	1-CONTROL	2-EXPOSURE	AGE:75 DAYS				
GROUP 1	9	27.1667	1.722	4.70	0.038	-0.26	18
GROUP 2	11	27.5181	3.734				
UGT76	1-CONTROL	2-EXPOSURE	AGE:76 DAYS				
GROUP 1	9	27.0667	1.573	5.67	0.022	-0.33	18
GROUP 2	11	27.5094	3.744				
UGT77	1-CONTROL	2-EXPOSURE	AGE:77 DAYS				
GROUP 1	9	27.0555	1.460	7.16	0.010	-0.06	18
GROUP 2	11	27.1363	3.908				

Table A.6 (continued)

VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F VALUE	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.
UC778	1-CONTROL 2-EXPOSURE AGE:78 DAYS	27.6889	1.824	0.608	4.27	0.051	-0.08	18	0.937	15.01	0.932
GROUP 1	9										
GROUP 2	11	27.8000	3.771	1.137							
UC779	1-CONTROL 2-EXPOSURE AGE:79 DAYS	27.4889	1.836	0.612	4.14	0.055	-0.22	18	0.828	15.13	0.817
GROUP 1	9										
GROUP 2	11	27.7989	3.738	1.127							
UC782	1-CONTROL 2-EXPOSURE AGE:82 DAYS	28.4111	2.107	0.702	4.21	0.053	0.10	18	0.918	15.06	0.912
GROUP 1	9										
GROUP 2	11	28.2454	4.324	1.304							
UC783	1-CONTROL 2-EXPOSURE AGE:83 DAYS	28.6666	2.147	0.716	4.26	0.051	0.02	18	0.985	15.01	0.984
GROUP 1	9										
GROUP 2	11	28.6363	4.432	1.336							
UC784	1-CONTROL 2-EXPOSURE AGE:84 DAYS	29.0555	2.334	0.778	3.73	0.075	0.11	18	0.914	15.54	0.909
GROUP 1	9										
GROUP 2	11	28.8727	4.507	1.359							
UC798	1-CONTROL 2-EXPOSURE AGE:98 DAYS	30.5111	2.546	0.849	4.91	0.034	-0.38	18	0.706	14.48	0.689
GROUP 1	9										
GROUP 2	11	31.2908	5.641	1.701							
UC799	1-CONTROL 2-EXPOSURE AGE:105 DAYS	30.9000	3.112	1.100	3.29	0.131	-0.59	16	0.562	14.46	0.539
GROUP 1	8										
GROUP 2	10	32.2200	5.641	1.784							

Table A.6 (continued)

GROUP 1 - STATUS GROUP 2 - STATUS		T - T E S T									
UNPAIRED	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F VALUE	2-TAIL PROB.	POOLED VARIANCE ESTIMATE		SEPARATE VARIANCE ESTIMATE		
							T VALUE	DEGREES OF FREEDOM	T VALUE	DEGREES OF FREEDOM	

UCT161	1-CONTROL	2-EXPOSURE	AGE:161 DAYS								
GROUP 1	7	39.1428	3.735	1.412	4.25	0.002	-0.04	15	0.971	13.74	
GROUP 2	10	39.2599	7.703	2.436						0.967	

UCT168	1-CONTROL	2-EXPOSURE	AGE:168 DAYS								
GROUP 1	7	41.2000	3.162	1.196	5.23	0.007	0.41	15	0.690	13.12	
GROUP 2	10	40.0099	7.231	2.287						0.652	

UCT175	1-CONTROL	2-EXPOSURE	AGE:175 DAYS								
GROUP 1	7	41.7857	2.912	1.101	6.53	0.003	0.13	15	0.896	12.48	
GROUP 2	10	41.3900	7.440	2.353						0.881	

UCT182	1-CONTROL	2-EXPOSURE	AGE:182 DAYS								
GROUP 1	7	43.0285	3.222	1.218	5.74	0.006	0.31	15	0.762	12.84	
GROUP 2	10	42.0699	7.721	2.442						0.731	

UCT189	1-CONTROL	2-EXPOSURE	AGE:189 DAYS								
GROUP 1	7	43.9714	4.318	1.632	3.43	0.147	0.39	15	0.702	14.33	
GROUP 2	10	42.6700	7.997	2.529						0.672	

UCT196	1-CONTROL	2-EXPOSURE	AGE:196 DAYS								
GROUP 1	7	45.5000	3.986	1.506	4.26	0.002	0.34	15	0.740	13.73	
GROUP 2	10	44.3600	8.229	2.642						0.710	

UCT203	1-CONTROL	2-EXPOSURE	AGE:203 DAYS								
GROUP 1	7	46.3428	4.078	1.541	4.80	0.105	0.75	15	0.467	13.91	
GROUP 2	10	43.8300	8.160	2.580						0.417	

Table A.6 (continued)

GROUP 1 - STATUS GROUP 2 - STATUS		T - TEST									
VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F VALUE	2-TAIL PROB.	POOLED VARIANCE ESTIMATE		SEPARATE VARIANCE ESTIMATE		
							T VALUE	DEGREES OF FREEDOM	T VALUE	DEGREES OF FREEDOM	

UGT210 1-CONTROL 2-EXPOSURE AGE:1210 DAYS											
GROUP 1	7	46.9285	4.689	1.772	3.26	0.164	0.58	15	0.569	14.45	
GROUP 2	10	44.8600	8.472	2.679					0.64	0.530	

UGT217 1-CONTROL 2-EXPOSURE AGE:1217 DAYS											
GROUP 1	7	47.4000	4.492	1.698	2.88	0.210	0.67	15	0.514	14.71	
GROUP 2	10	45.2400	7.629	2.412					2.73	0.475	

UGT224 1-CONTROL 2-EXPOSURE AGE:224 DAYS											
GROUP 1	7	46.9285	2.843	1.075	7.92	0.020	0.76	15	0.461	11.96	
GROUP 2	10	44.5199	8.080	2.530					0.88	0.398	

Table A.6 (continued)

GROUP 1 - STATUS		GROUP 2 - STATUS		T - TEST		P - POOLED VARIANCE ESTIMATE		S - SEPARATE VARIANCE ESTIMATE		
UNPAIRED	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F	2-TAIL VALUE PROB.	T	DEGREES OF FREEDOM	T	DEGREES OF FREEDOM
UGT231 1-CONTROL 2-EXPOSURE AGE:231 DAYS										
GROUP 1	6	47.2833	2.948	1.284						
GROUP 2	10	45.1599	7.966	2.519	7.30	0.041	0.62	14	0.76	12.41
UGT238 1-CONTROL 2-EXPOSURE AGE:238 DAYS										
GROUP 1	7	47.1286	4.043	1.528						
GROUP 2	10	44.6100	7.939	2.511	3.86	0.115	0.77	15	0.86	14.02
UGT245 1-CONTROL 2-EXPOSURE AGE:245 DAYS										
GROUP 1	7	48.4000	3.387	1.280						
GROUP 2	10	45.4000	7.921	2.505	5.47	0.051	0.94	15	1.07	12.99
UGT252 1-CONTROL 2-EXPOSURE AGE:252 DAYS										
GROUP 1	6	48.2166	1.560	0.637						
GROUP 2	9	45.0777	8.015	2.672	26.38	0.002	0.94	13	1.14	8.89

Appendix B
Statistical Summary of Blood Parameters

Table B.1
Red blood cells of F3-2 male mice.

T E S T												
VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F	2-TAIL PROB.	POOLED VARIANCE ESTIMATE			SEPARATE VARIANCE ESTIMATE		
							U	T	DEGREES OF FREEDOM	U	T	DEGREES OF FREEDOM
HEM28	1-CONTROL	2-EXPOSURE	AGE:28 DAYS									
GROUP 1	12	5.3982	1.571	0.463								
GROUP 2	11	6.6682	0.856	0.258	3.36	0.066	-2.39	21	0.026	-2.45	17.29	0.025
HEM70	1-CONTROL	2-EXPOSURE	AGE:70 DAYS									
GROUP 1	11	7.8173	0.762	0.227								
GROUP 2	11	7.7964	1.163	0.351	2.39	0.185	0.05	20	0.959	0.05	17.11	0.959
HEM100	1-CONTROL	2-EXPOSURE	AGE:100 DAYS									
GROUP 1	8	7.7962	0.717	0.253								
GROUP 2	9	7.7878	0.831	0.210	1.29	0.724	0.03	15	0.988	0.03	14.11	0.988
HEM250	1-CONTROL	2-EXPOSURE	AGE:250 DAYS									
GROUP 1	5	7.0440	0.701	0.313								
GROUP 2	5	7.1680	0.747	0.304	1.14	0.905	-0.27	8	0.793	-0.27	7.97	0.793
HEM300	1-CONTROL	2-EXPOSURE	AGE:300 DAYS									
GROUP 1	7	7.3129	0.882	0.227								
GROUP 2	7	6.8000	0.759	0.284	1.56	0.605	1.41	12	0.184	1.41	11.46	0.186
HEM350	1-CONTROL	2-EXPOSURE	AGE:350 DAYS									
GROUP 1	7	7.4971	0.641	0.242								
GROUP 2	7	7.7900	0.860	0.325	1.80	0.492	-0.72	12	0.484	-0.72	11.09	0.485
HEM600	1-CONTROL	2-EXPOSURE	AGE:600 DAYS									
GROUP 1	5	7.4460	1.366	0.611								
GROUP 2	6	8.1617	1.500	0.613	1.21	0.881	-0.82	9	0.434	-0.83	8.89	0.430

Table B.2
White blood cells of F3-2 male mice.

VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F VALUE	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.
MEW28	1-CONTROL	2-EXPOSURE	AGE:128 DAYS								
GROUP 1	12	23.9333	11.308	3.200	2.42	0.194	1.06	20	1.11	18.92	0.282
GROUP 2	10	19.4800	7.321	2.315							
MEW70	1-CONTROL	2-EXPOSURE	AGE:170 DAYS								
GROUP 1	11	15.0636	1.769	0.533	2.57	0.152	-0.52	20	-0.52	16.75	0.608
GROUP 2	11	15.5009	2.830	0.856							
MEW100	1-CONTROL	2-EXPOSURE	AGE:1100 DAYS								
GROUP 1	8	16.0000	3.456	1.222	1.78	0.434	0.51	15	0.51	12.91	0.622
GROUP 2	9	16.1444	2.587	0.862							
MEW250	1-CONTROL	2-EXPOSURE	AGE:1250 DAYS								
GROUP 1	5	14.5000	4.572	2.045	3.22	0.284	1.97	8	1.97	6.27	0.097
GROUP 2	5	9.9800	2.548	1.139							
MEW300	1-CONTROL	2-EXPOSURE	AGE:1300 DAYS								
GROUP 1	7	9.6986	1.466	0.554	6.20	0.043	-1.30	12	-1.30	7.89	0.229
GROUP 2	7	11.6367	3.649	1.379							
MEW350	1-CONTROL	2-EXPOSURE	AGE:1350 DAYS								
GROUP 1	7	14.2714	3.433	1.206	1.08	0.932	2.00	12	2.00	11.98	0.069
GROUP 2	7	10.6343	3.600	1.346							
MEW600	1-CONTROL	2-EXPOSURE	AGE:1600 DAYS								
GROUP 1	5	17.8000	3.263	1.459	11.57	0.034	0.26	9	0.26	6.01	0.774
GROUP 2	6	16.4350	11.099	4.531							

Table B.3
Packed cell volume of F3-2 male mice.

VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F VALUE	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.
MEK28	1-CONTROL	AGE:128	DAYS								
GROUP 1	12	44.7500	2.340	0.676							
GROUP 2	11	45.0000	1.446	0.436	2.62	0.140	-0.42	21	-0.42	18.53	0.676
MEK70	1-CONTROL	AGE:170	DAYS								
GROUP 1	9	40.2222	1.563	0.521							
GROUP 2	9	45.8889	2.522	0.841	2.60	0.198	0.34	16	0.34	13.36	0.742
MEK100	1-CONTROL	AGE:100	DAYS								
GROUP 1	8	46.2500	0.886	0.313							
GROUP 2	7	45.8571	1.069	0.404	1.45	0.631	0.78	13	0.78	11.75	0.457
MEK250	1-CONTROL	AGE:250	DAYS								
GROUP 1	4	44.0000	0.816	0.408							
GROUP 2	4	45.0000	0.816	0.408	1.00	1.000	-1.73	6	-1.73	6.00	0.134
MEK300	1-CONTROL	AGE:300	DAYS								
GROUP 1	6	41.6667	2.338	0.955							
GROUP 2	3	41.3333	0.577	0.333	16.40	0.117	0.24	7	0.24	6.07	0.753
MEK350	1-CONTROL	AGE:350	DAYS								
GROUP 1	5	42.2000	3.194	1.428							
GROUP 2	5	43.2000	1.304	0.583	6.00	0.111	-0.65	8	-0.65	5.30	0.545
MEK600	1-CONTROL	AGE:600	DAYS								
GROUP 1	5	39.4000	3.912	1.749							
GROUP 2	6	38.8333	1.328	0.543	8.66	0.036	0.34	9	0.34	4.77	0.769

Table B.4
Hemoglobin of F3-2 male mice.

UNABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F VALUE	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.
MEM28	1-CONTROL 12	15.7083	1.025	0.296	2.81	0.132	-0.17	20	0.869	-0.17	18.32	0.883
	GROUP 2 10	15.7700	0.811	0.193								
MEM70	1-CONTROL 11	16.5636	0.461	0.139	2.38	0.187	-0.64	20	0.529	-0.64	17.14	0.531
	GROUP 2 11	16.7273	0.711	0.214								
MEM100	1-CONTROL 8	17.4500	0.958	0.330	1.54	0.583	0.52	15	0.614	0.52	14.88	0.609
	GROUP 2 9	17.1778	1.108	0.396								
MEM250	1-CONTROL 5	15.3000	0.667	0.298	1.00	0.933	0.44	8	0.674	0.44	7.98	0.674
	GROUP 2 5	15.1200	0.638	0.285								
MEM300	1-CONTROL 7	14.2143	0.778	0.294	1.26	0.790	-0.13	12	0.899	-0.13	11.85	0.899
	GROUP 2 7	14.2714	0.871	0.329								
MEM350	1-CONTROL 7	15.5143	1.119	0.423	1.53	0.621	-1.26	12	0.231	-1.26	11.50	0.231
	GROUP 2 7	16.2000	0.906	0.342								
MEM600	1-CONTROL 5	12.8200	1.648	0.737	3.05	0.262	0.43	9	0.680	0.43	6.12	0.764
	GROUP 2 6	12.4833	0.943	0.385								

Table 3.5
Lymphocytes of F3-2 male mice.

[illegible]

Table B.6
Segmented neutrophils of F3-2 male mice.

VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F VALUE	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.
HEM28	1-CONTROL	2-EXPOSURE	AGE:128 DAYS								
GROUP 1	11	21.6364	3.325	1.002	2.90	0.099	1.09	20	1.09	16.01	0.292
GROUP 2	11	19.4545	5.751	1.734							
HEM78	1-CONTROL	2-EXPOSURE	AGE:170 DAYS								
GROUP 1	9	23.3333	7.089	2.363	2.06	0.282	0.12	18	0.12	13.87	0.907
GROUP 2	11	23.0000	4.940	1.489							
HEM100	1-CONTROL	2-EXPOSURE	AGE:110 DAYS								
GROUP 1	10	25.1000	10.290	3.254	1.10	0.875	-0.23	16	0.820	14.81	0.822
GROUP 2	8	26.2500	10.780	3.811							
HEM250	1-CONTROL	2-EXPOSURE	AGE:1250 DAYS								
GROUP 1	5	25.6000	4.278	1.913	5.01	0.154	-0.40	7	0.760	3.96	0.731
GROUP 2	4	27.5000	9.574	4.787							
HEM300	1-CONTROL	2-EXPOSURE	AGE:300 DAYS								
GROUP 1	7	38.0000	10.100	3.817	3.07	0.239	0.0	11	1.000	9.74	1.000
GROUP 2	6	38.0000	5.762	2.352							
HEM350	1-CONTROL	2-EXPOSURE	AGE:1350 DAYS								
GROUP 1	7	39.1429	9.839	3.719	1.03	0.970	0.97	12	0.351	12.00	0.351
GROUP 2	7	34.0000	10.000	3.780							
HEM600	1-CONTROL	2-EXPOSURE	AGE:1600 DAYS								
GROUP 1	6	40.6667	10.211	4.169	1.29	0.749	1.29	8	0.235	5.95	0.258
GROUP 2	4	31.7500	11.587	5.793							

Table B.7
Red blood cells of F3-2 female mice.

VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	POOLED VARIANCE ESTIMATE			SEPARATE VARIANCE ESTIMATE		
					F VALUE	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	T VALUE	DEGREES OF FREEDOM
HEPES	1-CONTROL	2-EXPOSURE	AGE:128 DAYS							
GROUP 1	10	5.5380	1.706	0.840	1.75	0.391	1.00	19	0.331	0.339
GROUP 2	11	4.8318	1.286	0.308						
HEP70	1-CONTROL	2-EXPOSURE	AGE:170 DAYS							
GROUP 1	5	7.4589	0.937	0.312	1.11	0.863	-0.71	18	0.488	0.491
GROUP 2	11	7.7491	0.891	0.269						
HEP100	1-CONTROL	2-EXPOSURE	AGE:100 DAYS							
GROUP 1	8	6.9775	1.221	0.432	1.78	0.415	-1.28	16	0.218	0.237
GROUP 2	10	7.6220	0.916	0.290						
HEP250	1-CONTROL	2-EXPOSURE	AGE:1250 DAYS							
GROUP 1	5	7.3500	0.752	0.336	1.26	0.885	0.66	7	0.528	0.522
GROUP 2	4	7.0300	0.670	0.375						
HEP300	1-CONTROL	2-EXPOSURE	AGE:1300 DAYS							
GROUP 1	4	8.1675	1.600	0.800	10.10	0.029	0.32	8	0.760	0.811
GROUP 2	6	7.9617	0.504	0.206						
HEP350	1-CONTROL	2-EXPOSURE	AGE:1350 DAYS							
GROUP 1	4	7.7200	0.847	0.423	1.67	0.842	-0.21	9	0.835	0.851
GROUP 2	7	7.8171	0.656	0.248						
HEP600	1-CONTROL	2-EXPOSURE	AGE:1600 DAYS							
GROUP 1	3	10.3467	0.353	0.204	33.45	0.059	0.39	7	0.706	0.594
GROUP 2	6	9.8650	2.039	0.833						

Table B.8
White blood cells of F3-2 female mice.

VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F VALUE	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.
MEM28	1-CONTROL	2-EXPOSURE	AGE:128 DAYS								
GROUP 1	10	17.5520	7.181	2.271	1.13	0.868	-0.05	19	0.958	18.97	0.958
GROUP 2	11	17.7254	7.621	2.298							
MEM70	1-CONTROL	2-EXPOSURE	AGE:170 DAYS								
GROUP 1	9	13.3067	2.733	0.911	3.01	0.132	-1.36	18	0.190	16.30	0.171
GROUP 2	11	15.7391	4.741	1.430							
MEM100	1-CONTROL	2-EXPOSURE	AGE:100 DAYS								
GROUP 1	8	12.7262	3.281	1.160	2.27	0.294	-1.05	16	0.309	15.58	0.288
GROUP 2	10	14.8640	4.938	1.562							
MEM250	1-CONTROL	2-EXPOSURE	AGE:250 DAYS								
GROUP 1	5	10.3900	2.030	0.900	2.82	0.421	-0.84	7	0.427	6.60	0.400
GROUP 2	4	11.3750	1.289	0.605							
MEM300	1-CONTROL	2-EXPOSURE	AGE:300 DAYS								
GROUP 1	4	11.9000	1.501	0.751	1.66	0.718	2.35	8	0.047	7.67	0.038
GROUP 2	6	9.1933	1.934	0.789							
MEM350	1-CONTROL	2-EXPOSURE	AGE:350 DAYS								
GROUP 1	4	12.1500	2.353	1.176	5.88	0.064	1.55	9	0.156	3.59	0.283
GROUP 2	7	10.6329	0.971	0.387							
MEM600	1-CONTROL	2-EXPOSURE	AGE:600 DAYS								
GROUP 1	3	13.0667	1.060	0.617	29.41	0.005	-1.39	7	0.208	5.64	0.006
GROUP 2	6	17.9000	5.799	2.387							

Table B.9
Packed cell volume of F3-2 female mice.

VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F VALUE	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.
HEP28	1-CONTROL 2-EXPOSURE	AGE:128 DAYS									
GROUP 1	10	45.3000	2.214	0.700	2.58	0.141	0.50	20	0.48	14.52	0.641
GROUP 2	12	44.9167	1.379	0.398							
HEP70	1-CONTROL 2-EXPOSURE	AGE:170 DAYS									
GROUP 1	8	43.5000	0.824	2.130	11.62	0.001	-1.61	16	-1.45	7.97	0.184
GROUP 2	10	46.7000	1.767	0.559							
HEP100	1-CONTROL 2-EXPOSURE	AGE:100 DAYS									
GROUP 1	8	44.1250	2.532	0.896	3.04	0.142	-2.01	15	-1.95	10.88	0.077
GROUP 2	9	46.1111	1.453	0.484							
HEP250	1-CONTROL 2-EXPOSURE	AGE:1250 DAYS									
GROUP 1	5	44.8000	1.095	0.490	2.40	0.092	-1.97	5	-2.43	3.12	0.093
GROUP 2	2	46.5000	0.707	0.500							
HEP300	1-CONTROL 2-EXPOSURE	AGE:1300 DAYS									
GROUP 1	2	47.0000	2.828	2.000	11.43	0.056	1.79	5	1.08	1.07	0.475
GROUP 2	5	44.8000	0.837	0.374							
HEP350	1-CONTROL 2-EXPOSURE	AGE:1350 DAYS									
GROUP 1	4	45.2500	1.708	0.854	7.78	0.122	-1.29	8	-1.53	6.70	0.170
GROUP 2	6	48.5000	4.764	1.945							
HEP600	1-CONTROL 2-EXPOSURE	AGE:1600 DAYS									
GROUP 1	4	41.7500	1.708	0.854	2.40	0.498	-1.46	7	-1.54	6.70	0.167
GROUP 2	5	44.0000	2.646	1.183							

Table B.10
Hemoglobin of F3-2 female mice.

VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F VALUE	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	T VALUE	2-TAIL PROB.
MEM28 GROUP 1	10	15.5500	0.863	0.273	2.29	0.228	-0.29	19	0.776	0.772
GROUP 2	11	15.6909	1.306	0.394						
MEM70 GROUP 1	9	15.7222	1.350	0.450	1.60	0.537	-1.02	18	0.320	0.333
GROUP 2	11	16.2818	1.102	0.332						
MEM100 GROUP 1	8	15.5625	2.696	0.953	5.84	0.018	-1.26	16	0.226	0.276
GROUP 2	10	16.7400	1.116	0.353						
MEM250 GROUP 1	5	15.4200	0.983	0.440	7.07	0.140	0.32	7	0.755	0.736
GROUP 2	4	15.2500	0.370	0.185						
MEM300 GROUP 1	4	15.8500	1.529	0.764	6.24	0.077	0.76	8	0.469	0.556
GROUP 2	6	15.3333	0.612	0.250						
MEM350 GROUP 1	4	16.6000	0.868	0.424	2.18	0.387	-0.42	9	0.651	0.720
GROUP 2	7	16.7867	0.595	0.225						
MEM600 GROUP 1	4	14.4000	2.942	1.471	7.22	0.058	0.43	8	0.681	0.739
GROUP 2	6	13.8500	1.095	0.447						

Table B.11
Lymphocytes of F3-2 female mice.

VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F			T			SEPARATE VARIANCE ESTIMATE		
					F VALUE	2-TAIL PROB.	T VALUE	T VALUE	DEGREES OF FREEDOM	T VALUE	DEGREES OF FREEDOM	T VALUE	DEGREES OF FREEDOM
MEN28													
GROUP 1	10	75.4000	9.276	2.973									
GROUP 2	12	70.6667	8.015	2.314	1.34	0.638	1.28	20	0.214	1.27	17.99	0.221	
MEN70													
GROUP 1	6	80.6667	5.354	2.186									
GROUP 2	8	77.6250	5.208	1.841	1.06	0.912	1.07	12	0.306	1.06	10.75	0.310	
MEN100													
GROUP 1	5	78.0000	5.450	2.437									
GROUP 2	7	72.4286	7.345	2.776	1.82	0.586	1.64	10	0.133	1.72	9.95	0.115	
MEN250													
GROUP 1	4	73.0000	2.944	1.472									
GROUP 2	4	79.0000	5.228	2.614	3.15	0.371	-2.00	6	0.092	-2.00	4.73	0.102	
MEN300													
GROUP 1	4	65.2500	6.131	3.065									
GROUP 2	6	59.1667	6.676	2.725	1.19	0.948	1.46	8	0.184	1.48	7.00	0.182	
MEN350													
GROUP 1	4	76.0000	12.028	6.014									
GROUP 2	5	69.2000	4.868	2.177	6.10	0.113	1.17	7	0.282	1.86	3.79	0.348	
MEN600													
GROUP 1	4	72.7500	2.986	1.493									
GROUP 2	6	73.1667	9.326	3.807	9.75	0.000	-0.00	8	0.934	-0.10	6.40	0.922	

Table B.12
Segmented neutrophils of F3-2 female mice.

UNPAIRED	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F VALUE	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.
MEM28	1-CONTROL 2-EXPOSURE	AGE:128 DAYS									
GROUP 1	10	21.7000	8.042	2.543	1.15	0.817	-1.40	20	0.178	18.74	0.182
GROUP 2	12	25.3333	7.512	2.168							
MEM70	1-CONTROL 2-EXPOSURE	AGE:70 DAYS									
GROUP 1	6	17.3333	5.125	2.092	1.49	0.683	-1.05	12	0.315	11.85	0.301
GROUP 2	8	20.6250	6.255	2.211							
MEM100	1-CONTROL 2-EXPOSURE	AGE:100 DAYS									
GROUP 1	5	19.8000	4.604	2.059	1.69	0.635	-1.84	10	0.095	9.89	0.082
GROUP 2	7	25.7143	5.992	2.265							
MEM250	1-CONTROL 2-EXPOSURE	AGE:250 DAYS									
GROUP 1	4	24.7500	4.113	2.056	2.08	0.573	1.01	7	0.345	6.92	0.325
GROUP 2	5	21.2000	5.933	2.653							
MEM300	1-CONTROL 2-EXPOSURE	AGE:300 DAYS									
GROUP 1	4	31.7500	6.185	3.092	1.18	0.846	-2.58	7	0.036	6.29	0.043
GROUP 2	5	42.0000	5.701	2.550							
MEM350	1-CONTROL 2-EXPOSURE	AGE:350 DAYS									
GROUP 1	4	21.5000	10.083	5.041	5.59	0.133	-1.52	7	0.172	3.88	0.237
GROUP 2	5	29.0000	4.301	1.824							
MEM400	1-CONTROL 2-EXPOSURE	AGE:400 DAYS									
GROUP 1	4	27.0000	3.651	1.826	6.84	0.144	0.20	8	0.849	6.88	0.023
GROUP 2	6	26.0000	9.550	3.899							

Table B.13
Red blood cells of F4-2 male mice.

T - T E S T										
VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	POOLED VARIANCE ESTIMATE			SEPARATE VARIANCE ESTIMATE		
					F VALUE	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	T VALUE	DEGREES OF FREEDOM
HEM28										
GROUP 1	8	7.3787	0.640	0.226	2.95	0.133	1.65	16	2.119	10.70
GROUP 2	10	6.9810	0.373	0.118						0.147
HEM70										
GROUP 1	7	7.3486	0.718	0.271	3.39	0.114	-1.22	14	0.241	8.72
GROUP 2	9	7.6911	0.390	0.130						0.285
HEM100										
GROUP 1	5	7.1860	0.554	0.248	1.45	0.743	1.66	9	0.131	9.00
GROUP 2	6	6.5633	0.666	0.272						0.125
HEM250										
GROUP 1	5	8.0720	0.777	0.347	2.65	0.275	1.47	10	0.172	6.15
GROUP 2	7	7.5429	0.477	0.180						0.225
HEM350										
GROUP 1	4	10.3825	0.656	0.328	6.84	0.144	2.14	8	0.065	6.88
GROUP 2	6	8.4283	1.716	0.700					2.53	0.030

Table B.14
White blood cells of F4-2 male mice.

VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	T VALUE	2-TAIL PROB.	DEGREES OF FREEDOM	2-TAIL PROB.
ME128	1-CONTROL	2-EXPOSURE	AGE:128 DAYS									
GROUP 1	8	13.6112	3.704	1.309								
GROUP 2	10	16.9820	13.933	4.406								
ME170	1-CONTROL	2-EXPOSURE	AGE:170 DAYS									
GROUP 1	7	16.9428	3.712	1.403								
GROUP 2	9	16.9778	4.042	1.347								
ME180	1-CONTROL	2-EXPOSURE	AGE:180 DAYS									
GROUP 1	5	14.6000	3.016	1.349								
GROUP 2	6	14.6833	1.894	0.772								
ME250	1-CONTROL	2-EXPOSURE	AGE:250 DAYS									
GROUP 1	5	11.1140	2.007	0.898								
GROUP 2	7	11.0528	2.693	1.018								
ME350	1-CONTROL	2-EXPOSURE	AGE:350 DAYS									
GROUP 1	4	20.6750	10.583	5.282								
GROUP 2	6	21.6000	6.146	2.509								

Table B.15
Packed cell volume of F4-2 male mice.

* POOLED VARIANCE ESTIMATE * SEPARATE VARIANCE ESTIMATE *										
VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F VALUE	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	T VALUE	DEGREES OF FREEDOM
HER28										
GROUP 1	6	45.1667	1.941	0.792	1.19	0.772	0.70	14	0.494	9.91
GROUP 2	10	44.5000	1.780	0.563						0.508
HER70										
GROUP 1	5	43.0000	4.062	1.817	6.12	0.039	-0.55	11	0.592	4.83
GROUP 2	8	43.8750	1.642	0.581						0.666
HER100										
GROUP 1	6	45.6667	1.366	0.558	1.71	0.569	0.73	10	0.485	9.35
GROUP 2	6	45.0000	1.789	0.730						0.487
HER250										
GROUP 1	5	44.4000	0.894	0.400	1.85	0.576	0.84	10	0.418	9.96
GROUP 2	7	43.8571	1.215	0.459						0.394
HER350										
GROUP 1	4	40.0000	6.377	3.189	25.12	0.002	-0.66	9	0.529	3.14
GROUP 2	7	41.5714	1.272	0.481						0.659

Table B.16
Hemoglobin of F4-2 male mice.

VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	POOLED VARIANCE ESTIMATE			SEPARATE VARIANCE ESTIMATE		
					F VALUE	2-TAIL PROB.	T VALUE	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.
MEM28	1-CONTROL	2-EXPOSURE	AGE:28 DAYS							
GROUP 1	8	16.2125	0.649	0.229						
GROUP 2	10	15.8100	0.390	0.123	2.77	0.157	1.63	1.55	10.92	0.151
MEM70	1-CONTROL	2-EXPOSURE	AGE:70 DAYS							
GROUP 1	7	16.8286	1.042	0.394						
GROUP 2	9	17.2889	0.629	0.210	2.74	0.188	-1.10	-1.03	9.32	0.329
MEM100	1-CONTROL	2-EXPOSURE	AGE:100 DAYS							
GROUP 1	5	17.0800	0.694	0.310						
GROUP 2	6	16.3833	0.757	0.300	1.19	0.891	1.58	1.59	8.88	0.146
MEM250	1-CONTROL	2-EXPOSURE	AGE:250 DAYS							
GROUP 1	5	14.6800	0.593	0.265						
GROUP 2	7	14.9429	0.582	0.213	1.11	0.862	-0.78	-0.77	8.46	0.462
MEM350	1-CONTROL	2-EXPOSURE	AGE:350 DAYS							
GROUP 1	4	15.6250	0.737	0.368						
GROUP 2	6	15.8167	0.993	0.405	1.82	0.661	-0.33	-0.35	7.80	0.735

Table B.17
Lymphocytes of F4-2 male mice.

VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F VALUE	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.
MEM28											
GROUP 1	3	70.6657	7.762	2.587	1.93	0.347	-1.05	17	-1.03	14.41	0.320
GROUP 2	10	73.9000	5.587	1.767							
MEM70											
GROUP 1	7	69.5714	5.593	2.114	3.09	0.187	0.88	14	0.393	13.04	0.362
GROUP 2	9	65.8889	9.829	3.276							
MEM100											
GROUP 1	5	70.4000	4.506	2.015	4.58	0.163	-0.49	10	-0.56	3.97	0.592
GROUP 2	7	72.7143	9.639	3.643							
MEM250											
GROUP 1	5	63.2000	8.871	3.967	1.71	0.530	-0.18	10	-0.17	7.20	0.878
GROUP 2	7	64.0000	6.782	2.563							
MEM350											
GROUP 1	4	68.7500	2.363	1.181	4.87	0.223	1.68	8	0.131	7.39	0.092
GROUP 2	6	64.0000	5.215	2.129							

Table B.18
Segmented neutrophils of F4-2 male mice.

	NUMBER OF CASES	STANDARD MEAN DEVIATION	STANDARD ERROR	F	2-TAIL VALUE	DEGREES OF FREEDOM	T	PROB.	7	DEGREES OF FREEDOM	2-TAIL VALUE	PROB.
MEM28	1-CONTROL	AGE:128 DAYS										
GROUP 1	9	28.0000	6.964	2.321	1.55	0.530	1	0.398	1	0.86	15.39	0.405
GROUP 2	10	25.5000	5.603	1.772			1					
MEN70	1-CONTROL	AGE:70 DAYS										
GROUP 1	7	29.8571	5.786	2.187	2.86	0.217	1	-0.64	1	-0.69	13.24	0.504
GROUP 2	9	32.5555	9.787	3.262			1					
MEN100	1-CONTROL	AGE:100 DAYS										
GROUP 1	5	29.0000	4.000	1.789	5.85	0.109	1	0.49	10	0.56	9.49	0.590
GROUP 2	7	26.7143	9.673	3.656			1					
MEN250	1-CONTROL	AGE:1250 DAYS										
GROUP 1	5	36.0000	10.687	4.743	2.56	0.292	1	0.90	10	0.83	6.22	0.441
GROUP 2	7	31.5714	6.630	2.506			1					
MEN350	1-CONTROL	AGE:1350 DAYS										
GROUP 1	4	29.2500	2.217	1.109	5.59	0.187	1	-1.51	8	-1.76	7.18	0.121
GROUP 2	6	33.5000	5.244	2.141			1					

Table B.19
Red blood cells of F4-2 female mice

UNIVARIATE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F VALUE	2-TAIL PROB.	POOLED VARIANCE ESTIMATE	DEGREES OF FREEDOM	T VALUE	SEPARATE VARIANCE ESTIMATE	DEGREES OF FREEDOM	2-TAIL PROB.
HEM28	1-CONTROL GROUP 1	7.1930	0.555	0.176	1.11	0.870	2.74	17	0.014	2.73	16.55	0.014
	2-EXPOSURE GROUP 2	6.4767	0.585	0.195								
HEM70	1-CONTROL GROUP 1	7.6211	0.415	0.138	1.21	0.793	0.70	16	0.496	0.70	15.86	0.496
	2-EXPOSURE GROUP 2	7.4778	0.457	0.152								
HEM100	1-CONTROL GROUP 1	7.4886	0.562	0.212	2.08	0.394	1.29	12	0.220	1.29	10.62	0.222
	2-EXPOSURE GROUP 2	7.1543	0.389	0.147								
HEM250	1-CONTROL GROUP 1	8.6814	0.575	0.255	1.11	0.890	1.09	12	0.296	1.09	11.97	0.296
	2-EXPOSURE GROUP 2	8.2971	0.640	0.242								
HEM350	1-CONTROL GROUP 1	10.1150	2.366	0.966	5.04	0.142	1.39	9	0.197	1.49	7.16	0.180
	2-EXPOSURE GROUP 2	8.5140	1.053	0.471								

Table B.20
White blood cells of F4-2 female mice.

WARTABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F VALUE	2-TAIL PROB.	F VALUE	DEGREES OF FREEDOM	F VALUE	DEGREES OF FREEDOM	2-TAIL PROB.
HE128	11	14.2736	6.841	2.063	2.64	0.182	0.48	18	0.636	0.59	0.620
GROUP 1	5	13.01	4.212	1.404							
GROUP 2	6										
HE170	9	12.3222	3.262	1.067	4.64	0.044	0.81	16	0.432	0.81	0.438
GROUP 1	5										
GROUP 2	4	11.3744	1.486	0.495							
HE180	7	12.3586	2.289	0.835	5.02	0.070	1.15	12	0.271	1.15	0.281
GROUP 1	4										
GROUP 2	3										
HE190	7	12.0286	1.547	0.585	1.11	0.905	2.39	14	0.040	2.30	0.040
GROUP 1	4										
GROUP 2	3	10.1729	1.470	0.556							
HE195	6	25.1000	6.950	2.837	1.01	0.967	0.66	9	0.529	0.65	0.529
GROUP 1	3										
GROUP 2	3	22.3400	6.969	3.117							

Table B.21
Packed cell volume of F4-2 female mice.

VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F VALUE	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.
WER28	1-CONTROL 2-EXPOSURE	AGE:128 DAYS										
GROUP 1	10	45.0000	1.491	0.471	3.06	0.128	1.15	15	0.268	1.05	8.75	0.323
GROUP 2	7	43.8571	2.610	0.986								
WER70	1-CONTROL 2-EXPOSURE	AGE:170 DAYS										
GROUP 1	6	44.5000	2.074	0.847	1.20	0.815	0.19	11	0.849	0.19	10.30	0.850
GROUP 2	7	44.2857	1.890	0.714								
WER100	1-CONTROL 2-EXPOSURE	AGE:100 DAYS										
GROUP 1	5	45.2000	1.304	0.583	1.06	0.923	-1.03	9	0.330	-1.03	8.53	0.331
GROUP 2	6	46.0000	1.265	0.516								
WER250	1-CONTROL 2-EXPOSURE	AGE:250 DAYS										
GROUP 1	5	44.6000	0.548	0.245	9.37	0.048	-1.60	10	0.141	-1.85	7.67	0.101
GROUP 2	7	45.8571	1.676	0.634								
WER359	1-CONTROL 2-EXPOSURE	AGE:350 DAYS										
GROUP 1	6	45.0000	1.265	0.516	1.17	0.867	-0.24	10	0.817	-0.24	9.94	0.817
GROUP 2	6	45.1667	1.169	0.477								

Table B.22
Hemoglobin of F4-2 female mice.

VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F VALUE	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.
HEM29	1-CONTROL GROUP 1	15.8818	1.076	0.324	1.54	0.551	0.78	18	0.443	0.80	0.433
	2-EXPOSURE GROUP 2	15.5333	0.866	0.289							
HEM70	1-CONTROL GROUP 1	16.3667	0.875	0.292	1.15	0.844	1.09	16	0.293	1.09	0.293
	2-EXPOSURE GROUP 2	15.9333	0.814	0.271							
HEM100	1-CONTROL GROUP 1	15.6000	0.231	0.087	1.46	0.656	-0.10	12	0.919	-0.10	0.919
	2-EXPOSURE GROUP 2	16.6143	0.279	0.106							
HEM250	1-CONTROL GROUP 1	15.5571	0.500	0.189	1.65	0.556	-0.60	12	0.557	-0.60	0.558
	2-EXPOSURE GROUP 2	15.7428	0.643	0.243							
HEM350	1-CONTROL GROUP 1	16.7500	0.663	0.270	1.76	0.551	1.34	10	0.211	1.34	0.214
	2-EXPOSURE GROUP 2	16.1500	0.878	0.358							

Table B.23
Lymphocytes of F4-2 female mice.

UNOBTAINABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.
WER28	1-CONTROL 2-EXPOSURE	AGE:28 DAYS									
GROUP 1	10	69.3000	13.565	4.290							
GROUP 2	10	74.4000	5.211	1.648							
					6.78	0.009	-1.11	18	0.282	11.60	0.289
WER70	1-CONTROL 2-EXPOSURE	AGE:70 DAYS									
GROUP 1	9	70.0000	8.139	2.713							
GROUP 2	9	74.8889	4.622	1.541							
					3.10	0.130	-1.57	16	0.137	12.67	0.141
WER100	1-CONTROL 2-EXPOSURE	AGE:100 DAYS									
GROUP 1	7	74.2857	6.897	2.647							
GROUP 2	7	72.1429	5.521	2.087							
					1.56	0.602	0.64	12	0.533	11.45	0.534
WER250	1-CONTROL 2-EXPOSURE	AGE:250 DAYS									
GROUP 1	7	72.1429	9.118	3.446							
GROUP 2	7	68.4286	5.192	1.962							
					3.08	0.196	0.94	12	0.367	9.52	0.371
WER350	1-CONTROL 2-EXPOSURE	AGE:350 DAYS									
GROUP 1	6	72.1667	5.750	2.348							
GROUP 2	6	71.0000	2.365	0.966							
					5.90	0.074	0.66	10	0.526	6.65	0.532

UNPAIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F VALUE	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.
HE728	10	29.7000	13.425	4.245	8.44	0.004	1.11	18	0.280
GROUP 1	10	24.7000	4.620	1.461					
GROUP 2	10	24.7000	4.620	1.461					
HE776	9	28.4444	7.923	2.641	2.84	0.161	1.16	16	0.264
GROUP 1	9	24.8889	4.702	1.567					
GROUP 2	9	24.8889	4.702	1.567					
HE7100	7	24.4286	6.925	2.617	1.52	0.626	-0.64	12	0.537
GROUP 1	7	26.5714	5.623	2.125					
GROUP 2	7	26.5714	5.623	2.125					
HE7250	7	24.0000	9.363	3.539	5.11	0.067	-1.00	12	0.339
GROUP 1	7	27.8571	4.140	1.565					
GROUP 2	7	27.8571	4.140	1.565					
HE7350	6	26.1667	5.879	2.400	5.26	0.092	-0.38	10	0.711
GROUP 1	6	27.1667	2.563	1.046					
GROUP 2	6	27.1667	2.563	1.046					

Table B.25
Red blood cells of F1-2 male mice.

VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F		T		T		
					VALUE	2-TAIL PROB.	VALUE	DEGREES OF FREEDOM	VALUE	DEGREES OF FREEDOM	
HEM28 1-CONTROL 2-EXPOSURE AGE:121 DAYS											
GROUP 1	11	7.9664	1.015	0.306	1.18	0.257	-0.70	0.490	-0.70	19.86	0.490
GROUP 2	11	8.2845	1.103	0.333							
HEM70 1-CONTROL 2-EXPOSURE AGE:170 DAYS											
GROUP 1	10	8.9720	0.893	0.284	1.76	0.089	0.31	0.757	0.31	16.68	0.761
GROUP 2	11	8.8636	0.677	0.204							
HEM100 1-CONTROL 2-EXPOSURE AGE:130 DAYS											
GROUP 1	10	9.2250	1.145	0.362	2.04	0.003	-0.57	0.574	-0.57	16.11	0.579
GROUP 2	10	9.5840	1.636	0.517							
HEM250 1-CONTROL 2-EXPOSURE AGE:250 DAYS											
GROUP 1	9	8.7512	0.504	0.178	1.13	0.089	0.13	0.500	0.13	14.93	0.899
GROUP 2	9	8.7583	0.535	0.178							

Table B.26

VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.
MEN22									
GROUP 1	11	10.0236	1.324	0.399	3.50	0.0061	-1.18	20	0.252
GROUP 2	11	11.0218	2.476	0.747					
MEN70									
GROUP 1	10	11.7550	3.242	1.025	1.63	0.458	-1.70	19	0.105
GROUP 2	11	13.9022	2.541	0.766					
MEN100									
GROUP 1	10	10.8190	2.174	0.688	1.54	0.530	-1.10	18	0.285
GROUP 2	10	12.0260	2.699	0.853					
MEN250									
GROUP 1	8	12.2000	1.301	0.460	1.45	0.637	0.35	15	0.733
GROUP 2	9	11.2556	1.567	0.522					

Table B.27
Packed cell volume of F1-2 male mice.

VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F VALUE	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.
MEP28	10	47.2000	2.251	0.712	2.87	0.033	0.48	18	0.636	16.05	0.637
GROUP 1	10	46.6000	3.239	1.024							
GROUP 2	10	46.6000	3.239	1.024							
MEP70	8	48.8750	1.458	0.515	1.80	0.451	-0.87	16	0.397	15.95	0.381
GROUP 1	8	48.8750	1.458	0.515							
GROUP 2	8	48.8750	1.458	0.515							
MEP100	9	46.6667	2.646	0.882	1.57	0.535	-0.10	16	0.923	15.24	0.923
GROUP 1	9	46.6667	2.646	0.882							
GROUP 2	9	46.6667	2.646	0.882							
MEP250	3	45.0000	1.581	0.743	1.76	0.443	1.26	15	0.228	12.95	0.239
GROUP 1	3	45.0000	1.581	0.743							
GROUP 2	3	45.0000	1.581	0.743							

Table B.28
Hemoglobin of F1-2 male mice.

VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F VALUE	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.
HER28 1-CONTROL 2-EXPOSURE AGE:28 DAYS												
GROUP 1	11	15.7454	0.604	0.182	2.53	0.160	-0.24	20	0.813	-0.24	16.84	0.814
GROUP 2	11	15.8273	0.960	0.290								
HER70 1-CONTROL 2-EXPOSURE AGE:70 DAYS												
GROUP 1	10	16.5000	1.079	0.341	1.09	0.300	-0.61	19	0.552	-0.60	16.09	0.560
GROUP 2	11	16.7454	0.766	0.231								
HER100 1-CONTROL 2-EXPOSURE AGE:100 DAYS												
GROUP 1	10	15.6800	0.889	0.281	1.93	0.342	-2.34	18	0.031	-2.34	15.35	0.033
GROUP 2	19	16.4900	0.640	0.202								
HER250 1-CONTROL 2-EXPOSURE AGE:250 DAYS												
GROUP 1	8	15.5500	0.598	0.211	1.51	0.576	-2.39	15	0.031	-2.36	13.56	0.034
GROUP 2	9	16.1778	0.487	0.162								

Table B.29
Lymphocytes of F1-2 male mice.

VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F VALUE	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	T VALUE	2-TAIL PROB.	DEGREES OF FREEDOM
MEM28	1-CONTROL	2-EXPOSURE	AGE:28 DAYS								
GROUP 1	10	73.1000	3.725	1.178	2.99	0.111	-0.61	20	0.551	0.533	18.04
GROUP 2	12	74.5000	6.446	1.861							
MEM70	1-CONTROL	2-EXPOSURE	AGE:70 DAYS								
GROUP 1	10	76.3000	5.794	1.832	2.18	0.241	-1.39	19	0.181	0.192	15.63
GROUP 2	11	79.2727	3.927	1.184							
MEM100	1-CONTROL	2-EXPOSURE	AGE:100 DAYS								
GROUP 1	10	77.9000	8.863	2.803	1.44	0.593	2.77	18	0.013	0.013	17.43
GROUP 2	10	67.8000	7.376	2.332							
MEM250	1-CONTROL	2-EXPOSURE	AGE:250 DAYS								
GROUP 1	8	74.2500	5.092	1.800	2.22	0.287	2.15	15	0.048	0.058	12.04
GROUP 2	9	69.7778	3.420	1.140							

Table B.30
Segmented neutrophils of 1-2 male mice.

Variable	Number of Cases	Mean	Standard Deviation	Standard Error	F Value	2-Tail Prob.	T Value	Degrees of Freedom	2-Tail Prob.
HEF28									
GROUP 1	10	23.3000	3.802	1.202					
GROUP 2	12	21.2500	5.396	1.558	2.01	0.303	1.01	20	0.325
HEF70									
GROUP 1	10	20.8000	6.822	2.152					
GROUP 2	11	17.1818	3.459	1.043	3.90	0.045	1.55	19	0.137
HEF100									
GROUP 1	10	18.6000	8.329	2.634					
GROUP 2	10	27.5000	5.949	1.881	1.96	0.330	-2.75	18	0.013
HEF250									
GROUP 1	8	24.7500	5.092	1.800					
GROUP 2	9	25.4444	3.321	1.107	2.35	0.254	-0.34	15	0.741
							-0.33	11.82	0.748

Table E.31
Red blood cells of F1-2 female mice.

VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	POOLED VARIANCE ESTIMATE			SEPARATE VARIANCE ESTIMATE		
					VALUE	DEGREES OF FREEDOM	2-TAIL PROB.	VALUE	DEGREES OF FREEDOM	2-TAIL PROB.
MEM28 1-CONTROL 2-EXPOSURE AGE:28 DAYS										
GROUP 1	12	8.1292	0.924	0.267	1.30	22	0.140	1.53	21.63	0.140
GROUP 2	12	7.5100	1.053	0.304						
MEM70 1-CONTROL 2-EXPOSURE AGE:70 DAYS										
GROUP 1	11	8.3945	0.725	0.219	2.59	19	0.782	-0.27	14.79	0.788
GROUP 2	12	8.5120	1.166	0.369						
MEM100 1-CONTROL 2-EXPOSURE AGE:100 DAYS										
GROUP 1	10	8.0520	0.906	0.287	1.44	18	0.926	-0.09	17.43	0.926
GROUP 2	10	8.0870	0.755	0.239						
MEM250 1-CONTROL 2-EXPOSURE AGE:250 DAYS										
GROUP 1	10	7.7850	0.475	0.150	1.58	16	0.701	-0.38	13.24	0.710
GROUP 2	8	7.8837	0.598	0.211						

Table B.32
White blood cells of F1-2 female mice.

GROUP	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F VALUE	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.
MEM28 1-CONTROL 2-EXPOSURE AGE:128 DAYS												
GROUP 1	11	11.0327	2.076	0.626	18.10	2.000	-1.52	21	0.129	-1.65	12.32	0.125
GROUP 2	12	15.3558	8.830	2.549								
MEM70 1-CONTROL 2-EXPOSURE AGE:170 DAYS												
GROUP 1	11	13.3909	2.306	0.695	1.21	0.261	-0.28	19	0.783	-0.28	13.00	0.782
GROUP 2	10	13.6000	2.093	0.662								
MEM100 1-CONTROL 2-EXPOSURE AGE:100 DAYS												
GROUP 1	10	16.8920	5.036	1.592	3.48	2.093	-0.33	17	0.742	-0.34	14.05	0.736
GROUP 2	9	17.5222	2.699	0.580								
MEM250 1-CONTROL 2-EXPOSURE AGE:1250 DAYS												
GROUP 1	10	14.2000	3.446	1.090	7.71	0.013	-0.01	16	0.994	-0.01	11.76	0.993
GROUP 2	8	14.3000	1.241	0.439								

Table B.33
Packed cell volume of F1-2 female mice.

VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F VALUE	2-TAIL PROB.	F VALUE	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.
MEM28	12	AGE:28 DAYS 47.4167	3.315	0.957	1.03	0.969	1.30	1.30	20.88	0.209
GROUP 1	11	45.6364	3.264	0.984						
GROUP 2	10	45.5000	3.808	1.204						
MEM70	9	AGE:70 DAYS 47.5555	2.555	0.852	2.22	0.275	1.36	1.39	15.81	0.182
GROUP 1	8	44.7778	1.787	0.596						
GROUP 2	10	43.4000	2.914	0.921						
MEM100	9	AGE:100 DAYS 44.7778	1.787	0.596	2.66	0.183	1.22	1.26	15.12	0.228
GROUP 1	8	44.2500	2.121	0.750						
GROUP 2	10	45.1000	1.443	0.458						
MEM250	10	AGE:250 DAYS 45.1000	1.443	0.458	2.14	0.284	1.01	0.97	11.31	0.353
GROUP 1	8	44.2500	2.121	0.750						
GROUP 2	10	45.1000	1.443	0.458						

Table B.34
Hemoglobin of F1-2 female mice.

UNIVARIATE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F VALUE	2-TAIL PROB.	F VALUE	DEGREES OF FREEDOM	F VALUE	DEGREES OF FREEDOM	2-TAIL PROB.
ME128 1-CONTROL 2-EXPOSURE AGE: 28 DAYS											
GROUP 1	12	16.2333	0.757	0.215							
GROUP 2	10	15.8900	1.361	0.430	3.23	0.071	6.75	20	0.463	0.71	0.489
ME170 1-CONTROL 2-EXPOSURE AGE: 170 DAYS											
GROUP 1	11	15.7091	0.823	0.248							
GROUP 2	10	15.6000	1.333	0.422	0.63	0.149	0.23	19	0.822	0.22	0.827
ME180 1-CONTROL 2-EXPOSURE AGE: 180 DAYS											
GROUP 1	10	16.0600	1.296	0.410							
GROUP 2	5	16.3655	1.267	0.422	1.05	0.959	-0.50	17	0.622	-0.50	0.622
ME1850 1-CONTROL 2-EXPOSURE AGE: 250 DAYS											
GROUP 1	10	15.8200	0.719	0.227							
GROUP 2	8	16.7025	0.475	0.168	2.29	0.206	-3.12	16	0.006	-3.33	0.004

Table B.35
Lymphocytes of F1-2 female mice.

VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F VALUE	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.
HEM28											
GROUP 1	13	68.3846	5.923	1.920	1.85	0.318	-0.42	23	-0.43	21.96	0.674
GROUP 2	12	69.4167	5.089	1.460							
HEM70											
GROUP 1	12	65.9167	7.561	2.183	1.38	0.608	0.36	20	0.37	17.84	0.715
GROUP 2	10	64.6000	8.872	2.806							
HEM100											
GROUP 1	11	63.6364	9.825	2.721	1.21	0.789	-1.42	19	-1.43	19.00	0.179
GROUP 2	10	69.0000	9.219	2.599							
HEM250											
GROUP 1	10	68.3000	6.395	2.022	2.14	0.327	-0.73	16	-0.77	15.69	0.455
GROUP 2	8	70.2500	4.367	1.544							

Table B.36
Segmented neutrophils of 1-2 female mice.

VARIABLE	NUMBER OF CASES	MEAN	STANDARD DEVIATION	STANDARD ERROR	F VALUE	2-TAIL PROB.	T VALUE	DEGREES OF FREEDOM	T VALUE	DEGREES OF FREEDOM	2-TAIL PROB.
HEM28 GROUP 1	13	29.6923	6.434	1.784	1.19	0.285	0.38	23	0.38	23.60	0.706
GROUP 2	12	28.7500	5.910	1.706							
HEM70 GROUP 1	12	29.4167	7.128	2.058	1.67	0.417	-0.60	20	-0.58	16.79	0.567
GROUP 2	10	31.5000	9.217	2.915							
HEM100 GROUP 1	11	31.9091	8.938	2.695	1.13	0.861	0.79	19	0.80	18.97	0.436
GROUP 2	10	28.9000	8.399	2.656							
HEM250 GROUP 1	10	29.6000	5.948	1.881	2.08	0.172	0.62	16	0.544	14.86	0.522
GROUP 2	8	28.1250	3.482	1.231							