

groups. Tumor incidence rates were analyzed according to IARC recommendations. Trend tests were used, based on nominal dose levels. Peto's method was used for each tumor type and the combinations of tumor types. For low incidence tumor types, an exact test was performed to obtain more precise probability values.

2.2.1 Survival Data Analysis

The sponsor claimed that there was no treatment-related effect in survival in female mice. There was also no difference between the survival curves of the female groups, even though controls 1 and 2 seemed to have slightly different distributions of survival times. However, there was a statistically significant ($p=0.0011$) trend of decreasing survival time with increasing dose in males. The Kaplan-Meier survival graph showed that the survival distribution of high dose male group was different from those of the other male groups. The sponsor claimed that the survival time in high dose male group was statistically significant lower than of the combined controls ($p=0.006$) due to an increase in the incidence of left atrial thrombosis of the heart.

2.2.2 Tumor Data Analysis

The sponsor observed that the incidences of liver hemangiosarcoma and of all haemagiosarcomas in males given high dose were significantly higher ($p=0.013$) than those in the combined control groups. However, there were no significant trends in the incidences of these tumor types ($p=0.796$). The sponsor also claimed that there was no treatment-related positive trend in incidence rate in other tumor types tested in either sex.

2.3 Reviewer's Analyses

This reviewer performed independent analyses on the survival and tumor data submitted by the sponsor, using the programs written by Dr. Ted Guo of Division of Biostatistics II. The primary statistical methods used were described by Peto *et al* (1980), and Lin and Ali (1994). These methods adjust differences in animal mortality and take the fatal or prevalence context of observation of the tumor into consideration. The intervals used for the adjustment of mortality were 0-52, 53-78, and 79-93 weeks and terminal sacrifice for males and 0-52, 53-78, 79-91, 92-104 and terminal sacrifice for females.

The statistical analyses of carcinogenicity study data consisted of two parts, namely, the survival data analysis and the tumor data analysis. The survival data analysis was: 1) to examine the differences in survival distributions among the treatment groups (homogeneity test); and 2) to determine if there is a positive linear trend in the proportion of deaths with respect to the dose levels (Linear trend test). Two statistical tests were used in the survival data analysis: the Cox test and the generalized Kruskal-Wallis test. The theoretical background of these tests was described by Lin and Ali (1994) and Thomas *et al* (1977).

The tumor data analysis was: 1) to determine if there is a positive linear trend in the

proportions of a selected tumor type in a selected organ/tissue with respect to the dose levels. The tumors were classified as either fatal (lethal) or non-fatal (non-lethal), according to Peto *et al*(1980). The reviewer applied the death-rate method to fatal tumors and the prevalence method to non-fatal tumors. For tumors that caused death for some, but not for all, animals, a combined test was performed.

A rule for adjusting the effect of multiple testings proposed by Haseman (1983) can be used to adjust for the effect of multiple testings in pairwise comparisons. A similar rule proposed by the Divisions of Biometrics, CDER/FDA for trend tests was used in this review. The rule states that in order to keep the overall false-positive rate at the nominal level of approximately 0.1, tumor types with spontaneous tumor rates of 1% or less (rare tumors) should be tested at 0.025 significance level, otherwise (common tumors) a 0.005 significance level should be used (Lin and Rahman, 1988).

2.3.1. Survival Data Analysis

The results of this reviewer's analysis were consistent with the sponsor's results. Figures 1a and 1b present plots of Kaplan-Meier estimates of the survival distributions of the treatment groups for male and female mice, respectively.

The dose-mortality trend tests for survival distributions of five groups (Control 1, Control 2, Low, Medium, and High) were performed separately for male and female mice using the Cox test and the generalized Kruskal-Wallis test. The tests show that for male mice, there was a statistically significant ($p < 0.05$) positive linear trend and an increase in mortality in any treated group when compared with the controls groups (Tables 3a). As can be seen in Table 2a, the mortality rates for male mice at the end of 95 weeks increased from the control groups to the high dose group (48%, 65%, 47%, 67%, and 73%).

There was no treatment-related effect in survival in female mice.

2.3.2 Tumor Data Analysis

This reviewer's analyses used the procedures described by Peto *et al* (1980) and Lin and Ali (1994). The results are summarized in Tables 4a and 4b. The results of this reviewer's analysis were consistent with the sponsor's results. There was no significant treatment-related positive trend in incidence rate in tumor types tested in either sex.

2.3.3 Evaluation of Validity of the Study Designs

This reviewer's analysis did not find any tumor type with a significant positive trend in the mouse study. However, before drawing the conclusion that the drug is not carcinogenic in mice, it is important to look into the following two issues as pointed out in the paper by Haseman (1984). The two issues are:

- 1) Were enough animals exposed to a drug for a sustained amount of time to the risk of late developing tumors?

2 Were dose levels high enough to pose a reasonable tumor challenge to the tested animals ?

This is no consensus among experts regarding the number of animals and the length of time at risk, although most carcinogenicity studies are designed to run for two years with fifty animals per treatment group. The following are some rules of thumb regarding these two issues suggested by experts in this field: Haseman (1984) investigated the first issue. He gathered data from 21 studies using Fischer 344 rats and B6C3F1 mice conducted at the National Toxicology Program (NTP). It was found that, on an average, approximately 50% of the animals in the high dose group survived the two-year study period. Haseman suggested that, as a rule of thumb, a 50% survival of 50 initial animals in the high dose group, between weeks 80-90, would be considered as a sufficient number of animals under an adequate exposure. However, the percentage can be lower or higher if the number of animals used in each treatment/sex group is larger or smaller than 50 so that there will be between 20-30 animals still alive during these weeks. In addition, Chu, Cueto, and Ward (1981) suggested that "To be considered adequate, an experiment that has not shown a chemical to be carcinogenic should have groups of animals with greater than 50% survival at one-year." It appears, from the above sources, that the proportions of survival at 52 weeks, 80-90 weeks, and two years are of interest in determining the adequacy of exposure and number of animals at risk.

For the adequacy of the chosen dose levels, it is generally accepted that the high dose should be close to the MTD (maximum tolerated dose). Chu, Cueto, and Ward (1981) suggested the following rules on this issue:

- I) "A dose is considered adequate if there is a detectable loss in weight gain of up to 10% in a dose group relative to the controls." or
- II) "The administered dose is also considered an MTD if dosed animals exhibit clinical signs or severe histopathologic toxic effects attributed to the chemical." or
- III) "In addition, doses are considered adequate if the dosed animals show a slightly increased mortality compared to the controls."

Bart, Chu, and Tarone (1979) stated that the mean body weight curves over the entire study period should be taken into consideration with the survival curves, when adequacy of dose levels is to be examined. In particular, "usually, the comparison should be limited to the early weeks of a study when no or little mortality has yet occurred in any of the groups. Here a depression of the mean weight in the treated groups is an indication that the treatment has been tested on levels at or approaching the MTD."

Based on the above suggestions and recommendations, this reviewer examined the validity of the experimental design of the mouse study.

Analysis of Mice Survival and Body Weight Data

The sponsor claimed that the mean body weights of control groups 1 and 2 were similar throughout the treatment period for both sexes. All comparisons against the treatment groups were been made against combined control groups.

The following are the summary survival data of mice for the high dose group at weeks 52, 91, and ends of the studies.

Survival data for High Dose of Mice

Sex	End of 52 Weeks	End of 91 Weeks	End of Study Weeks
Male	92%	29%	Weeks 95 - 27%
Female	92%	67%	Weeks 104 - 42%

At the end of 91 weeks survival rate for male mice (29%) appeared to be considerably lower than that Haseman (1984) suggests as necessary for provision of adequate exposure to the drug. The survival rate at week 91 for female mice (67%) is sufficient to provide adequate exposure.

The following table summarizes the percentages of weight gain as compared to combined control groups for mice.

Mean Body Weight Gain for Mice

Sex	Groups	Mean Body Weight (grams)		Mean Body Weight Gain (grams)	% Differences in MBWG
		Beginning Study	End of Study		
Male	Control	30.2	46.6	16.4	
	Low	30.2	48.1	17.9	9
	Medium	30.2	44.0	13.8	-16
	High	30.5	45.8	15.3	-7
Female	Control	23.1	38.5	15.4	
	Low	23.0	39.1	16.1	5
	Medium	23.0	37.7	14.7	-5
	High	23.1	38.7	15.6	1

The male high dose had a 7% weight gain decrement. The body weight gain data suggested for high dose used for male mice was close to MTD according to the criterion proposed by Chu, Cueto, and Ward (1981). However, the body weight gain data presented in the above table and the mortality data presented in Table 2b and Figure 1b suggested that the high dose used for female mice weight might be under MTD. The above evaluation of validity of the study designs was based on the information contained in the data of body weight gain and mortality of the mouse study. The information about clinical signs and histopathologic effects attributed to the drug should also be included in the final evaluation.

3. The Rat Study

BEST POSSIBLE

3.1 Design

The study included two experiments, one in male and one in female rats. In each of these experiments there were two control groups and three treated groups known as low, medium, and high. Two control groups (Groups 1 and 2) and three groups of rats (Groups 3, 4 and 5), each consisting of 60 males and 60 females received orally doses of 0, 0, 0.05, 0.3 and 2 mg/kg/day, respectively. The terminal sacrifice was performed during experimental week 104. Clinical observation and palpation for tissue masses were performed once a month for the first 12 months and then every second week. Body weights and food consumption were recorded once a week.

3.2 Sponsor's Analyses

The statistical methods used by the sponsor in the analysis of data of the rat study were described in the mouse study (Section 2.2).

3.2.1 Survival Data Analysis

The sponsor claimed that survival in high dose male rats was lower than those in the other groups due to a higher incidence (12/60) of fatal cardiac effects (hypertrophy, cardiomyopathy and hydrothorax) when compared with that of the combined control groups (1/120). In females, survival in the high dose exceeded that seen in the control groups.

3.2.2 Tumor Data Analysis

The sponsor observed that the only treatment-related effect in incidence was the subcutaneous lipoma tumor. The effect appeared in the medium dose male group and in the high dose female group.

3.3 Reviewer's Analyses

This reviewer performed independent analyses on the survival and tumor data submitted by the sponsor and used the programs written by the statistician, Dr. Ted Guo of Division of Biostatistics II. The primary statistical methods used were described by Peto *et al* (1980) and Lin and Ali (1994). The methods allow for the differences in animal mortality and the fatal or prevalence context of observation of the tumor. The time intervals used for the adjustment of mortality were 0-52, 53-78, 79-91, 92-103 weeks and terminal sacrifice.

3.3.1 Survival Data Analysis

The results of this reviewer's analysis were consistent with the sponsor's results. Figures

1c and 1d present the plots of Kaplan-Meier estimates of the survival distributions of the treatment groups for male and female rats, respectively.

The dose-mortality trend tests for survival distributions of five groups (Control 1, Control 2, Low, Medium, and High) were performed separately for male and female mice using the Cox test and the generalized Kruskal-Wallis test. The tests show that for all treatment groups in both male and female rats, there were statistically significant ($p < 0.05$) positive linear trends in mortality. When compared with the controls all treated groups had significantly higher mortality (Tables 3c and 3d).

3.3.2 Tumor Data Analysis

BEST POSSIBLE

This reviewer's analyses used the procedures described by Peto *et al* (1980) and Lin and Ali (1994). The results were summarized in Tables 4c and 4d. The incidence rates for subcutaneous lipoma tumor with p-values are summarized in the following table.

Sex	Tumor Rate					P-Value
	Control 1	Control 2	Low	Medium	High	
Male	3	4	5	13	6	0.1661
Female	1	2	3	1	9	0.0011*

• * indicate statistically significant at level 0.005

There was a significant positive dose-response relationship ($p < 0.005$) in subcutaneous lipoma in females but not in males. This reviewer compared the subcutaneous lipoma tumor incidence rates of the combined control groups versus the medium dose in males using the Fisher exact test. The difference is a statistically significant ($p = 0.0024$) which is consistent with the sponsor's result.

4 Conclusion

In the 2-year male mouse study, there was statistically significant positive linear trend in mortality between controls and three dose groups. No such trend existed in the female mouse study. No tumors with a significant trend in incidence were observed in either male or female mouse studies. The evaluation of the design validity suggested that the dosage for the high dose males could be close to MTD. However, for the high dose for female mice could be under MTD. To draw any final conclusion on this issue, all clinical signs and histopathological toxic effects in the treated mice should be taken into consideration.

In the 2-year rat study, statistically significant positive linear trend in mortality between controls and three dose groups was detected in males and females. There was a statistically significant trend in subcutaneous incidence in female rats. The control-medium pairwise comparison of the incidences of the tumor type was also statistically significant.

References

- 1) Bart, Chi, and Tarone (1979). "Statistical Issues in Interpretation of Chronic Bioassay Tests for Carcinogenicity." Journal of the National Cancer Institute. Vol. 62, pp.957-974.
- 2) Chu, Cueto and Ward (1981). "Factors in the evaluation of 200 national cancer institute carcinogen bioassay." Journal of Toxicology and environmental Health. Vol. 8, pp.251-80.
- 3) Haseman, J. K. (1983). "A re-examination of false-positive rates for carcinogenesis studies." Fundamental and Applied Toxicology, 3, pp.334-9
- 4) Haseman, J. K. (1985). "Issues in carcinogenicity testing: Dose selection." Fundamental and Applied Toxicology. Vol. 5. Pp. 66-78.
- 5) Lang, P. L. (1992). "Spontaneous neoplastic lesions and selected non-neoplastic lesions in the CrI:CD BR rat." Charles River Laboratories. Table 5b. neoplasms 24 Month Studies Female CD®Rats. pp.23
- 6) Lin, K. K. and M. Ali (1994), "Statistical Review and Evaluation of Animal Tumorigenicity Studies." Statistical in the Pharmaceutical Industry, Second Edition, Revised and Expanded, edited by C.R.Buncher and J.Y. Tsay, Marcel Dekker, Inc., New York. pp. 19-57.
- 7) Lin, K. K. and M. A. Rahman (1988). "Overall False Positive Rates in Tests for Linear Trend in Tumor Incidence in Animal Carcinogenicity Studies of New Drug." Journal of Biopharmaceutical Statistics, 8(1), 1-15 (1998)
- 8) Peto *et al* (1980). "Guidelines for Simple, Sensitive Significance Tests for Carcinogenic Effects in Ling-Term Animal Experiments," In Long-Term and Short-Term Screening Assays for Carcinogens: An Critical Appraisal, International Agency for Research on Cancer, Lyon, France." IARC monographs supplement, 2, pp.311-426
- 9) Thomas *et al* (1977). "Trend and Homogeneity Analyses of Proportions and Life Table Data," Computer and Biomedical Research, 10, pp.373-381.

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Attachments

The Attachemtns to the report are listed on text pages

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Figure 1a

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Kaplan-Meier Survival Function

Species: Mouse
Sex: Male

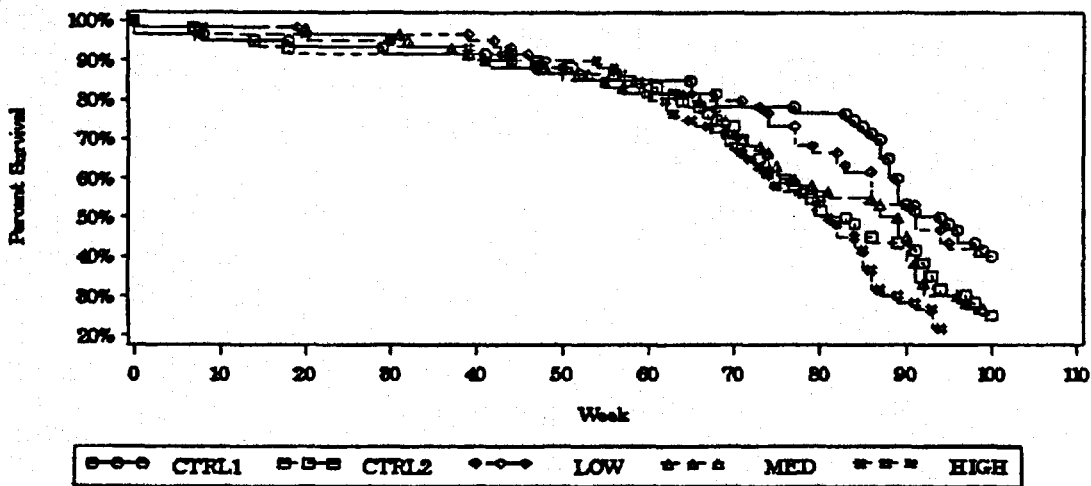
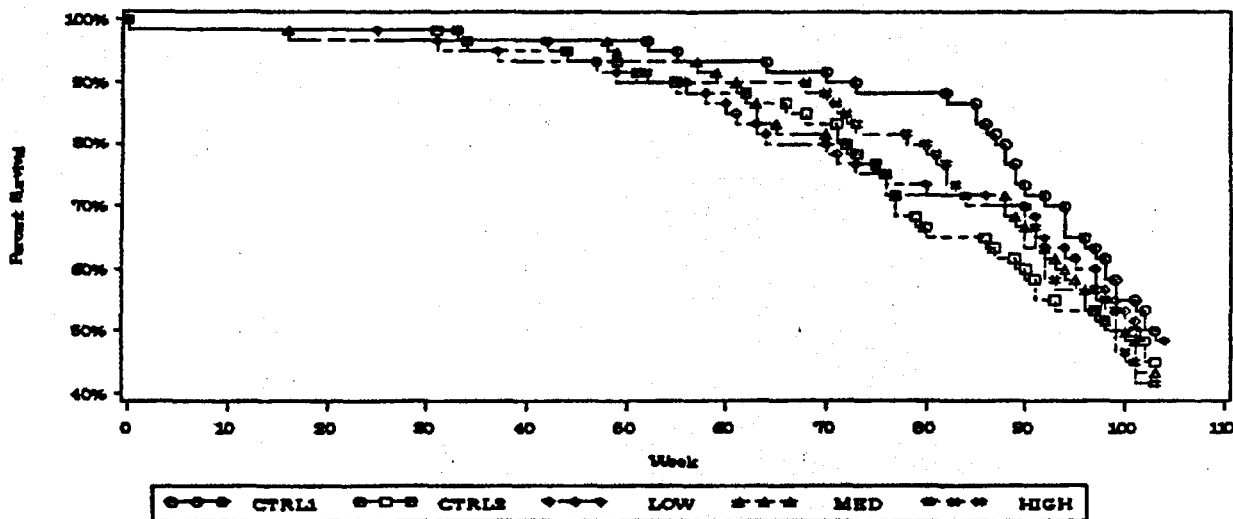


Figure 1b

Kaplan-Meier Survival Function

Species: Mouse
Sex: Female



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Figure 1c

Kaplan-Meier Survival Function
Kaplan-Meier Survival Function

Species: Rat
Sex: Male

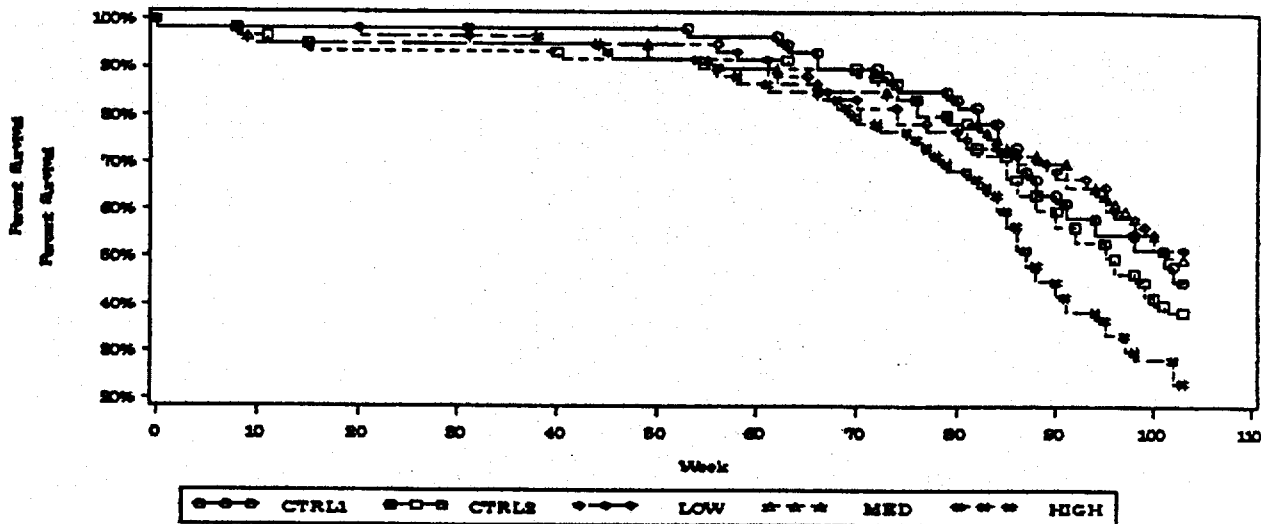
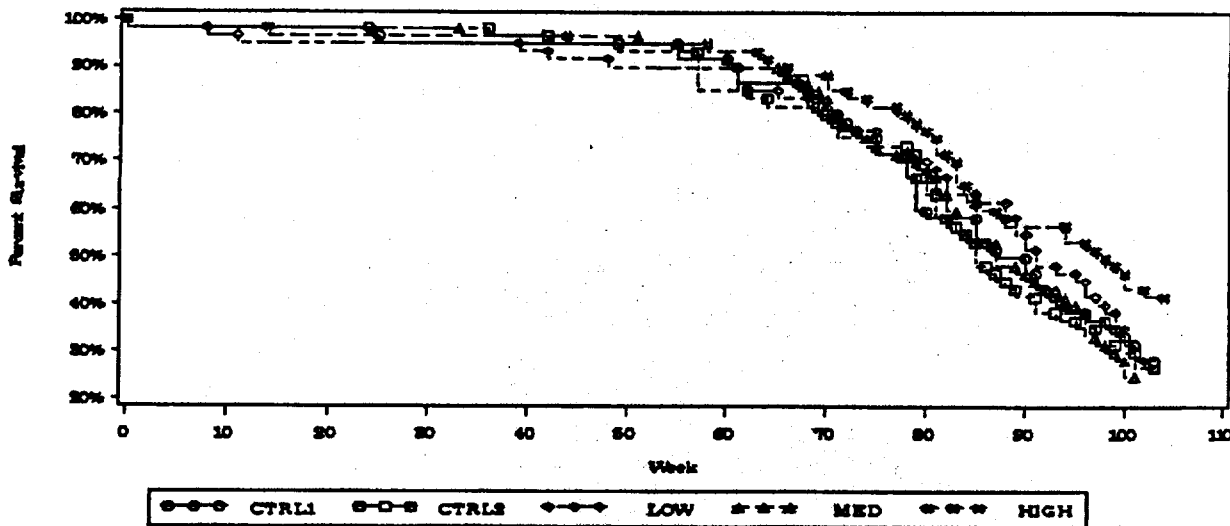


Figure 1d

Kaplan-Meier Survival Function

Species: Rat
Sex: Female



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Table 2a

Analysis of Mortality
Species: Mouse
Sex: Male

Time(- wks)	CTRL1			CTRL2			Dose LOW			MED			HIGH		
	NUM. of Dead	NUM. at Risk	CUMU Pct. Died	NUM. of Dead	NUM. at Risk	CUMU Pct. Died	NUM. of Dead	NUM. at Risk	CUMU Pct. Died	NUM. of Dead	NUM. at Risk	CUMU Pct. Died	NUM. of Dead	NUM. at Risk	CUMU Pct. Died
0-52	8	60	13.3	7	60	11.7	7	60	11.7	7	60	11.7	6	60	8.3
53-78	5	52	21.7	18	53	41.7	8	53	26.7	17	53	40.0	21	55	43.3
79-93	16	47	48.3	14	35	65.0	12	44	46.7	16	36	66.7	18	34	73.3
94-101	31	60	51.7	21	60	35.0	32	60	53.3	20	60	33.3	16	60	26.7

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Table 2b

Analysis of Mortality
Species: Mouse
Sex: Female

Time(- wks)	CTRL1			CTRL2			Dose LOW			MED			HIGH		
	Num. of Dead	Num. at Risk	Cumu Pct. Died	Num. of Dead	Num. at Risk	Cumu Pct. Died	Num. of Dead	Num. at Risk	Cumu Pct. Died	Num. of Dead	Num. at Risk	Cumu Pct. Died	Num. of Dead	Num. at Risk	Cumu Pct. Died
0-52	2	60	3.3	5	60	8.3	5	60	8.3	3	60	5.0	5	60	8.3
53-78	4	58	10.0	12	55	20.3	10	55	25.0	12	57	25.0	6	55	10.3
79-91	10	54	26.7	8	43	41.7	4	45	31.7	5	45	33.3	9	49	33.3
92-103	14	44	50.0	8	35	55.0	11	41	50.0	14	40	56.7	15	40	58.3
104- 105	30	60	50.0	27	60	45.0	30	60	50.0	26	60	43.3	25	60	41.7

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Table 2c

Analysis of Mortality
Species: Rat
Sex: Male

Time(- wks)	CTRL1			CTRL2			Dose LOW			MED			HIGH		
	NUM.	NUM.	CUMU	NUM.	NUM.	CUMU	NUM.	NUM.	CUMU	NUM.	NUM.	CUMU	NUM.	NUM.	CUMU
	of	at	Pct.	of	at	Pct.	of	at	Pct.	of	at	Pct.	of	at	Pct.
0-52	.	.	.	4	60	6.7	2	60	3.3	3	60	5.0	4	60	6.7
53-78	8	60	13.3	6	60	16.7	11	60	21.7	7	60	16.7	13	60	28.3
79-91	15	60	38.3	14	60	40.0	8	60	31.7	8	60	30.0	18	60	58.3
92-104	14	60	61.7	17	60	68.3	14	60	55.0	17	60	58.3	15	60	83.3
105- 106	23	60	83.3	19	60	78.3	27	60	90.0	25	60	83.3	10	60	50.0

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Table 2d

Analysis of Mortality
Species: Rat
Sex: Female

Time(- wks)	Dose														
	CTRL1			CTRL2			LOW			MED			HIGH		
	Num. of Dead	Num. at Risk	Cumu Pct. Died	Num. of Dead	Num. at Risk	Cumu Pct. Died	Num. of Dead	Num. at Risk	Cumu Pct. Died	Num. of Dead	Num. at Risk	Cumu Pct. Died	Num. of Dead	Num. at Risk	Cumu Pct. Died
0-52	2	60	3.3	3	60	5.0	5	60	8.3	2	60	3.3	2	60	3.3
53-78	15	58	28.3	12	57	26.7	9	55	29.3	15	58	28.3	10	58	20.0
79-91	15	43	53.3	19	44	59.3	15	46	48.3	16	43	55.0	13	48	41.7
92-104	15	28	78.3	13	25	80.0	19	31	80.0	16	27	81.7	14	35	55.0
105- 106	13	60	21.7	12	60	20.0	12	60	20.0	11	60	18.3	21	60	35.0

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Table 3a

Dose-Mortality Trend Tests

This test is run using Trend and Homogeneity Analyses of Proportions and Life Table Data Version 2.1, by Donald G. Thomas, National Cancer Institute

Species: Mouse
Sex: Male

Method	Time-Adjusted Trend Test	Statistic	P Value
Cox	Dose-Mortality Trend	5.71	0.0036
	Depart from Trend	5.02	0.1108
	Homogeneity	12.73	0.0127
Kruskal-Wallis	Dose-Mortality Trend	5.97	0.0146
	Depart from Trend	5.80	0.1218
	Homogeneity	11.77	0.0192

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BEST POSSIBLE

Table 3b

Dose-Mortality Trend Tests

This test is run using Trend and Homogeneity Analyses of Proportions and Life Table Data Version 2.1, by Donald G. Thomas, National Cancer Institute

Species: Mouse
Sex: Female

Method	Time-Adjusted Trend Test	Statistic	P Value
Cox	Dose-Mortality Trend	0.47	0.4945
	Depart from Trend	1.15	0.7658
	Homogeneity	1.61	0.8064
Kruskal-Wallis	Dose-Mortality Trend	0.24	0.6276
	Depart from Trend	1.94	0.5845
	Homogeneity	2.18	0.7032

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Tale 3c

Dose-Mortality Trend Tests

This test is run using Trend and Homogeneity Analyses of Proportions and Life Table Data Version 2.1, by Donald G. Thomas, National Cancer Institute

Species: Rat
Sex: Male

Method	Time-Adjusted Trend Test	Statistic	P Value
Cox	Dose-Mortality Trend	11.81	0.0006
	Depart from Trend	3.15	0.0694
	Homogeneity	14.96	0.0048
Kruskal-Wallis	Dose-Mortality Trend	10.67	0.0011
	Depart from Trend	2.29	0.5143
	Homogeneity	12.96	0.0116

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BEST POSSIBLE

Table 3d

Dose-Mortality Trend Tests

This test is run using Trend and Homogeneity Analyses of Proportions and Life Table Data Version 2.1, by Donald G. Thomas, National Cancer Institute

Species: Rat
Sex: Female

Method	Time-Adjusted Trend Test	Statistic	P Value
Cox	Dose-Mortality Trend	4.84	0.0278
	Depart from Trend	0.61	0.8951
	Homogeneity	5.45	0.2444
Kruskal-Wallis	Dose-Mortality Trend	3.91	0.0480
	Depart from Trend	0.66	0.8832
	Homogeneity	4.57	0.3345

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BEST POSSIBLE

Table 4a

Analysis of Carcinogenic Potential in Male Mouse
 Test of Dose-Response (Tumor) Positive Linear Trend
 Study No.

Run Date & Time: March 9, 1999 (10:41)

Source: C:\N21071\mm1.dat

Note: Dose Levels Included: CTRL1 CTRL2 LOW MED HIGH (0 0 0.4 1.5 6)
 Missing value in Tumor-Caused Death is treated as tumor not causing death
 Tumor Type: IN: Incidental (nonfatal) tumor, FA: Fatal tumor.

ORGAN/TISSUE NAME AND TUMOR NAME	(ORG#) (TMR#)	TUMOR TIME TYPES STRATA	ROW NO.	2xC_CONTINGENCY -----TABLE-----	EXACT PROB	ASYMP TOTIC	ASYMP(CONTI NUITY CORR)
ADRENAL CORTICAL ADENOMA [B]	(1) (2)	) IN 53-78) IN 53-78 IN 94-101 IN 94-101	1 2 1 2	0 0 0 0 1 5 18 9 17 20 1 0 0 0 0 30 21 32 20 16	0.3933	0.2089	0.2541
Spontaneous tumor pct: <= 1% in ctrl. - Total					1 0 0 0 1		
ADRENAL PHEOCHROMOCYTOMA [B]	(1) (3)	) IN 53-78) IN 53-78	1 2	0 0 0 1 0 5 18 9 16 21	0.5429	0.6109	0.6838
Spontaneous tumor pct: <= 1% in ctrl. - Total					0 0 0 1 0		
LYMPH NODE - MESENTERIC HEMANGIOMA [B]	(10) (5)	) IN 94-101) IN 94-101	1 2	0 0 1 2 0 31 21 31 18 16	0.3773	0.5083	0.5669
Spontaneous tumor pct: <= 1% in ctrl. - Total					0 0 1 2 0		
MAMMARY GLAND ADENOCARCINOMA [M]	(11) (19)	) FA 89) FA 89 FA 90 FA 90	1 2 1 2	1 0 0 0 0 38 27 37 32 19 1 0 0 0 0 35 26 37 30 18	1.0000	0.8027	0.8502
Spontaneous tumor pct: 2% in ctrl. - Total					2 0 0 0 0		
PANCREAS ISLET CELL ADENOMA [B]	(14) (25)	) IN 94-101) IN 94-101	1 2	0 0 1 0 0 31 21 31 20 16	0.5667	0.6496	0.7383
Spontaneous tumor pct: <= 1% in ctrl. - Total					0 0 1 0 0		
PANCREAS ACINAR CELL CARCINOMA [M]	(14) (26)	) IN 53-78) IN 53-78	1 2	0 0 0 1 0 5 18 9 16 21	0.5429	0.6109	0.6838
Spontaneous tumor pct: <= 1% in ctrl. - Total					0 0 0 1 0		
PITUITARY ADENOMA [B]	(16) (18)	) IN 94-101) IN 94-101	1 2	1 0 0 0 0 30 21 32 20 16	1.0000	0.7215	0.7998
Spontaneous tumor pct: <= 1% in ctrl. - Total					1 0 0 0 0		
PITUITARY GLIOMA [M]	(16) (28)	) IN 79-93) IN 79-93	1 2	0 0 0 1 0 16 14 12 15 18	0.4474	0.5496	0.6303
Spontaneous tumor pct: <= 1% in ctrl. - Total					0 0 0 1 0		
SKIN FIBROMA [B]	(18) (30)	) IN 94-101) IN 94-101	1 2	2 0 0 0 0 29 21 32 20 16	1.0000	0.7879	0.8448
Spontaneous tumor pct: 2% in ctrl. - Total					2 0 0 0 0		
SKIN FIBROSARCOMA [M]	(18) (31)	) IN 53-78) IN 53-78 IN 79-93	1 2 1	2 0 0 1 1 3 15 9 13 19 1 0 1 0 2	0.7609	0.7652	0.7758

ORGAN/TISSUE NAME (ORG#) TUMOR TIME ROW 2xC_CONTINGENCY EXACT ASYMP ASYMP(CONTI
 AND TUMOR NAME (TMR#) TYPES STRATA NO. -----TABLE----- PROB TOTIC NUIITY CORR)
 =PR(STATISTIC.GE.OBSERVED)

IN 79-93 2 11 11 7 13 13

BEST POSSIBLE

IN 94-101	1	8	5	1	0	0
IN 94-101	2	22	15	29	19	16
FA 62	1	0	0	0	0	1
FA 62	2	52	50	50	50	48
FA 64	1	0	1	0	1	0
FA 64	2	52	48	50	49	46
FA 68	1	0	0	0	1	0
FA 68	2	51	46	49	47	44
FA 70	1	0	0	0	1	0
FA 70	2	49	45	49	44	43
FA 73	1	0	1	0	0	0
FA 73	2	49	41	48	42	39
FA 76	1	0	1	0	0	0
FA 76	2	49	36	46	38	35
FA 79	1	0	1	0	0	0
FA 79	2	47	34	44	36	34
FA 83	1	1	1	1	0	0
FA 83	2	46	30	39	34	29
FA 84	1	1	0	0	0	0
FA 84	2	45	30	38	34	29
FA 86	1	0	0	1	0	1
FA 86	2	44	29	37	34	24
FA 87	1	0	0	0	0	1
FA 87	2	43	27	37	33	21
FA 88	1	1	0	0	0	0
FA 88	2	41	27	37	32	19
FA 89	1	0	0	0	1	0
FA 89	2	39	27	37	31	19
FA 90	1	1	0	0	1	0
FA 90	2	35	26	37	29	18
FA 91	1	0	0	2	1	0
FA 91	2	32	26	35	26	18
FA 92	1	0	1	0	0	0
FA 92	2	31	24	32	23	17
FA 93	1	0	0	0	0	1
FA 93	2	31	23	32	20	16
FA 94	1	0	0	1	0	0
FA 94	2	31	21	31	20	16
FA 95	1	1	0	1	0	0
FA 95	2	29	19	27	20	0
FA 96	1	0	0	0	1	0
FA 96	2	29	19	26	19	0
FA 100	1	0	1	0	0	0
FA 100	2	26	16	25	16	0

Spontaneous tumor pct: 23% in ctrl. - Total - 16 12 8 8 7

SKIN (18) IN 94-101 1 0 0 1 0 0 0.5667 0.6496 0.7383
 MYXOSARCOMA [M] (33) IN 94-101 2 31 21 31 20 16
 Spontaneous tumor pct: <= 1% in ctrl. - Total - 0 0 1 0 0

SKIN (18) IN 79-93 1 0 0 0 0 1 0.2368 0.0404 0.0620
 CARCINOMA, NOS [M] (35) IN 79-93 2 16 14 12 16 17
 Spontaneous tumor pct: <= 1% in ctrl. - Total - 0 0 0 0 1

BEST POSSIBLE

ORGAN/TISSUE NAME AND TUMOR NAME	(ORG#) (TMR#)	TUMOR TIME TYPES STRATA	ROW NO.	2x2 CONTINGENCY -----TABLE-----	EXACT PROB	ASYMP TOTIC	ASYMP(CONTI NUITY CORR)	=PR(STATISTIC.GE.OBSERVED)
SPLEEN	(19)	) IN 94-101	1	1 0 0 0	0	1.0000	0.7215	0.7998
HEMANGIOMA [B]	(5)	) IN 94-101	2	30 21 32 20 16				
Spontaneous tumor pct: <= 1% in ctrl. - Total			-	1 0 0 0				
TESTIS	(22)	) IN 53-78	1	0 0 0 1 0	0.7859	0.8106	0.8339	
INTERSTITIAL CELL TUMOR [	(39)	) IN 53-78	2	5 18 9 16 21				
		IN 79-93	1	1 0 0 0 0				
		IN 79-93	2	15 14 12 16 18				
		IN 94-101	1	0 2 1 2 0				
		IN 94-101	2	31 19 31 18 16				
Spontaneous tumor pct: 3% in ctrl. - Total			-	1 2 1 3 0				
TESTIS	(22)	) IN 53-78	1	1 0 0 0 0	1.0000	0.8084	0.8574	
PAPILLOMA [B], rete testi	(40)	) IN 53-78	2	4 18 9 17 21				
Spontaneous tumor pct: <= 1% in ctrl. - Total			-	1 0 0 0 0				
THYROID	(23)	) IN 0-52	1	0 0 0 1 0	0.3529	0.4558	0.5533	
FOLLICULAR CELL ADENOMA [	(41)	) IN 0-52	2	8 7 7 6 5				
Spontaneous tumor pct: <= 1% in ctrl. - Total			-	0 0 0 1 0				
MULTIPLE ORGANS	(27)	) IN 53-78	1	1 0 0 1 0	0.2858	0.2645	0.2887	
HISTIOCYTIC SARCOMA [M]	(46)	) IN 53-78	2	4 18 9 16 21				
		IN 79-93	1	0 1 0 0 3				
		IN 79-93	2	16 11 12 16 15				
		IN 94-101	1	0 0 1 0 0				
		IN 94-101	2	31 21 31 20 16				
		FA 79	1	0 1 0 0 0				
		FA 79	2	47 34 44 36 34				
		FA 92	1	0 1 0 0 0				
		FA 92	2	31 24 32 23 17				
Spontaneous tumor pct: 3% in ctrl. - Total			-	1 3 1 1 3				
MULTIPLE ORGANS	(27)	) IN 0-52	1	0 0 1 0 1	0.2509	0.2542	0.2702	
MALIGNANT LYMPHOMA [M]	(47)	) IN 0-52	2	8 7 6 7 3				
		IN 53-78	1	1 0 0 1 0				
		IN 53-78	2	4 17 8 14 20				
		IN 94-101	1	3 2 1 1 1				
		IN 94-101	2	27 19 29 19 15				
		FA 39	1	0 0 0 0 1				
		FA 39	2	56 56 59 56 56				
		FA 55	1	0 0 1 0 0				
		FA 55	2	52 53 52 52 54				
		FA 71	1	0 1 0 1 0				
		FA 71	2	49 43 49 42 41				
		FA 74	1	0 0 0 1 1				
		FA 74	2	49 39 47 40 37				
		FA 83	1	0 0 1 0 0				
		FA 83	2	47 31 39 34 29				
		FA 87	1	1 0 0 0 0				
		FA 87	2	42 27 37 33 22				
		FA 89	1	1 0 0 0 1				
		FA 89	2	38 27 37 32 18				
		FA 92	1	0 0 0 1 0				

BEST POSSIBLE

ORGAN/TISSUE NAME AND TUMOR NAME	(ORG#) (TMR#)	TUMOR TIME TYPES STRATA	ROW NO.	2x2 CONTINGENCY -----TABLE-----	EXACT PROB	ASYMP TOTIC	ASYMP (CONTI NUITY CORR)
		FA 92	2	31 25 32 22 17			
		FA 94	1	0 0 1 0 0			
		FA 94	2	31 21 31 20 16			
		FA 96	1	1 0 0 0 0			
		FA 96	2	28 19 26 20 0			
		FA 99	1	0 0 1 0 0			
		FA 99	2	26 17 25 17 0			
Spontaneous tumor pct: 8%		in ctrl. - Total	-	7 3 6 5 5			
BONE - FEMUR	(3)	) IN 94-101	1	1 0 0 0 0	1.0000	0.7215	0.7998
HEMANGIOMA [B]	(5)	) IN 94-101	2	30 21 32 20 16			
Spontaneous tumor pct: <= 1%		in ctrl. - Total	-	1 0 0 0			
EPIDIDYMIS	(6)	) IN 79-93	1	0 0 0 1 0	0.4474	0.5496	0.6303
HEMANGIOMA [B]	(5)	) IN 79-93	2	16 14 12 15 18			
Spontaneous tumor pct: <= 1%		in ctrl. - Total	-	0 0 0 1 0			
EPIDIDYMIS	(6)	) IN 79-93	1	0 0 0 1 0	0.4474	0.5496	0.6303
INTERSTITIAL CELL TUMOR [	(9)	) IN 79-93	2	16 14 12 15 18			
Spontaneous tumor pct: <= 1%		in ctrl. - Total	-	0 0 0 1 0			
LIVER	(8)	) IN 53-78	1	0 0 1 0 0	0.9934	0.9859	0.9877
HEPATOCELLULAR ADENOMA [B	(11)	) IN 53-78	2	5 18 8 17 21			
		IN 79-93	1	3 2 2 1 0			
		IN 79-93	2	13 12 10 15 18			
		IN 94-101	1	1 3 4 3 0			
		IN 94-101	2	30 18 28 17 16			
Spontaneous tumor pct: 8%		in ctrl. - Total	-	4 5 7 4 0			
LIVER	(8)	) IN 53-78	1	0 2 0 0 0	0.9942	0.9886	0.9899
HEPATOCELLULAR CARCINOMA	(12)	) IN 53-78	2	5 18 9 17 21			
		IN 79-93	1	1 1 3 2 1			
		IN 79-93	2	14 13 9 14 17			
		IN 94-101	1	7 4 4 3 0			
		IN 94-101	2	24 17 28 17 16			
		FA 85	1	1 0 0 0 0			
		FA 85	2	44 29 38 34 27			
Spontaneous tumor pct: 13%		in ctrl. - Total	-	9 7 7 5 1			
LIVER	(8)	) IN 53-78	1	0 0 1 0 0	0.7970	0.8329	0.8608
HEMANGIOSARCOMA [M]	(13)	) IN 53-78	2	5 18 8 17 21			
		IN 94-101	1	0 0 3 0 0			
		IN 94-101	2	31 21 29 20 16			
Spontaneous tumor pct: <= 1%		in ctrl. - Total	-	0 0 4 0 0			
LIVER	(8)	) IN 94-101	1	0 1 0 0 0	1.0000	0.7215	0.7998
LIPOMA [B]	(14)	) IN 94-101	2	31 20 32 20 16			
Spontaneous tumor pct: <= 1%		in ctrl. - Total	-	0 1 0 0 0			
LIVER	(8)	) IN 94-101	1	0 0 0 1 0	0.3000	0.4308	0.5317
SARCOMA, NOS [M]	(15)	) IN 94-101	2	31 21 32 19 16			
Spontaneous tumor pct: <= 1%		in ctrl. - Total	-	0 0 0 1 0			

BEST POSSIBLE

LUNG	(9	)	IN 0-52	1	1	0	0	0	0	0	0.4403	0.4467	0.4616
BRONCHOALVEOLAR ADENOMA	(16	)	IN 0-52	2	7	7	7	7	5				
ORGAN/TISSUE NAME	(ORG#)		TUMOR TIME	ROW	2x2 CONTINGENCY					EXACT	ASYMP	ASYMP(CONTI	
AND TUMOR NAME	(TMR#)		TYPES STRATA	NO.	-----TABLE-----					PROB	TOTIC	NUTTY	CORR)
											=PR(STATISTIC.GE.OBSERVED)		
			IN 53-78	1	0	1	1	1	3				
			IN 53-78	2	5	17	8	16	18				
			IN 79-93	1	3	3	2	3	3				
			IN 79-93	2	13	11	10	13	15				
			IN 94-101	1	5	5	7	2	3				
			IN 94-101	2	26	16	25	18	13				
Spontaneous tumor pct: 15%			in ctrl. - Total	-	9	9	10	6	9				

LUNG	(9	)	IN 0-52	1	0	0	0	1	0	0.6064	0.6228	0.6421
BRONCHOALVEOLAR CARCINOMA	(17	)	IN 0-52	2	8	7	7	6	5			
			IN 53-78	1	0	1	0	0	0			
			IN 53-78	2	5	16	9	17	21			
			IN 79-93	1	0	0	0	1	0			
			IN 79-93	2	15	14	12	12	17			
			IN 94-101	1	6	4	3	1	2			
			IN 94-101	2	25	17	29	19	14			
			FA 86	1	0	1	0	0	0			
			FA 86	2	51	47	49	49	45			
			FA 86	1	0	0	0	1	0			
			FA 86	2	44	29	38	33	25			
			FA 87	1	0	0	0	0	1			
			FA 87	2	43	27	37	33	21			
			FA 89	1	0	0	0	1	0			
			FA 89	2	39	27	37	31	19			
			FA 90	1	1	0	0	0	0			
			FA 90	2	35	26	37	30	18			
			FA 92	1	0	0	0	1	0			
			FA 92	2	31	25	32	22	17			
Spontaneous tumor pct: 11%			in ctrl. - Total	-	7	6	3	6	3			

- 9 - (End of File)

BEST POSSIBLE

Table 4b

Analysis of Carcinogenic Potential in Female Mouse
Test of Dose-Response (Tumor) Positive Linear Trend
Study No.
Run Date & Time: February 23, 1999 (9:32)
Source: C:\MOH\ff.dat

Note: Dose Levels Included: CTRL1 CTRL2 LOW MED HIGH (0 0 0.4 1.5 6)
Missing value in Tumor-Caused Death is treated as tumor not causing death
Tumor Type: IN: Incidental (nonfatal) tumor, FA: Fatal tumor.

ORGAN/TISSUE NAME AND TUMOR NAME	(ORG#) (TMR#)	TUMOR TIME TYPES STRATA	ROW NO.	2xC_CONTINGENCY -----TABLE-----	EXACT PROB	ASYMP TOTIC	ASYMP(CONTI NUITY CORR)
=PR(STATISTIC.GE.OBSERVED)							
ADRENAL	(1	) IN 92-103	1	0 0 1 0 0	0.3982	0.3395	
0.3872							
SUBCAPSULAR CELL ADENOMA	(1	) IN 92-103	2	14 8 10 14 15			
		IN 104-105	1	1 0 0 0 1			
		IN 104-105	2	29 27 30 26 24			
Spontaneous tumor pct: <= 1% in ctrl. - Total			-	1 0 1 0 1			
LYMPH NODE - MESENTERIC (10)) IN 104-105 1 0 0 0 1 0 0.3696 0.4921							
0.5820							
HEMANGIOSARCOMA [M]	(13	) IN 104-105	2	30 27 30 25 25			
Spontaneous tumor pct: <= 1% in ctrl. - Total			-	0 0 0 1 0			
MAMMARY GLAND (11)) IN 79-91 1 0 0 0 0 1 0.2500 0.0448							
0.0671							
ADENOMA [B]	(18	) IN 79-91	2	10 8 4 5 8			
Spontaneous tumor pct: <= 1% in ctrl. - Total			-	0 0 0 0 1			
MAMMARY GLAND (11)) IN 0-52 1 0 1 0 0 0 0.5869 0.5984							
0.6145							
ADENOCARCINOMA [M]	(19	) IN 0-52	2	2 4 5 3 5			
		IN 53-78	1	0 0 1 0 0			
		IN 53-78	2	3 10 8 11 4			
		IN 79-91	1	0 0 0 1 0			
		IN 79-91	2	9 8 2 4 8			
		IN 92-103	1	2 0 0 0 1			
		IN 92-103	2	11 7 10 13 13			
		IN 104-105	1	2 0 1 3 0			
		IN 104-105	2	28 27 29 23 25			
		FA 62	1	0 1 0 0 0			
		FA 62	2	57 53 51 54 55			
		FA 64	1	1 0 0 0 0			
		FA 64	2	56 53 50 52 55			
		FA 65	1	0 0 0 1 0			
		FA 65	2	56 53 49 51 55			
		FA 70	1	0 0 1 0 1			
		FA 70	2	56 51 48 50 53			
		FA 72	1	0 0 0 0 1			
		FA 72	2	55 50 47 49 51			
		FA 77	1	0 1 0 0 0			
		FA 77	2	54 44 45 45 50			
		FA 80	1	0 0 1 0 0			
		FA 80	2	54 41 44 45 49			
		FA 82	1	1 0 0 0 0			
		FA 82	2	53 40 44 45 47			
		FA 86	1	0 0 1 0 0			
		FA 86	2	52 40 43 45 43			
		FA 91	1	0 0 0 0 1			
		FA 91	2	44 36 42 40 41			
		FA 93	1	0 0 0 0 1			
		FA 93	2	43 35 39 38 37			
		FA 94	1	0 0 1 0 0			
		FA 94	2	43 33 38 37 35			
		FA 97	1	0 1 0 0 0			
		FA 97	2	39 32 37 34 35			

BEST POSSIBLE

		FA 100	1	0	0	0	1	0		
		FA 100	2	35	31	33	30	32		
		FA 102	1	1	0	0	0	0		
		FA 102	2	32	30	31	29	27		
Spontaneous tumor pct: 9%	in ctrl.	- Total	-	7	4	6	6	5		
MAMMARY GLAND	(11)	FA 83	1	0	0	0	0	1	0.2018	0.0267
0.0434										
CARCINOSARCOMA [M]	(20)	FA 83	2	53	40	44	45	45		
Spontaneous tumor pct: <= 1%	in ctrl.	- Total	-	0	0	0	0	1		
MESENTERY	(12)	FA 73	1	0	0	0	0	1	0.2016	0.0266
0.0432										
HEMANGIOSARCOMA [M]	(13)	FA 73	2	55	48	47	48	49		
Spontaneous tumor pct: <= 1%	in ctrl.	- Total	-	0	0	0	0	1		
OVARY	(13)	IN 104-105	1	0	1	0	0	0	1.0000	0.7456
0.8126										
LEIOMYOSARCOMA [M]	(21)	IN 104-105	2	30	26	30	26	25		
Spontaneous tumor pct: <= 1%	in ctrl.	- Total	-	0	1	0	0	0		
=PR(STATISTIC.GE.OBSERVED)										
OVARY	(13)	IN 104-105	1	1	0	0	1	2	0.0725	0.0392
0.0499										
CYSTADENOMA [B]	(22)	IN 104-105	2	29	27	30	25	23		
Spontaneous tumor pct: <= 1%	in ctrl.	- Total	-	1	0	0	1	2		
OVARY	(13)	IN 79-91	1	1	0	0	0	0	0.4732	0.4523
0.4943										
GRANULOSA CELL TUMOR [B]	(23)	IN 79-91	2	9	8	4	5	9		
		IN 92-103	1	1	0	0	0	1		
		IN 92-103	2	13	8	11	14	14		
		IN 104-105	1	0	0	0	1	0		
		IN 104-105	2	30	27	30	25	25		
Spontaneous tumor pct: 2%	in ctrl.	- Total	-	2	0	0	1	1		
OVARY	(13)	IN 104-105	1	0	1	1	1	2	0.1084	0.0865
0.1039										
TUBULAR ADENOMA [B]	(24)	IN 104-105	2	30	26	29	25	23		
Spontaneous tumor pct: <= 1%	in ctrl.	- Total	-	0	1	1	1	2		
OVARY	(13)	IN 79-91	1	1	0	0	0	0	1.0000	0.7582
0.8161										
HEMANGIOMA [B]	(5)	IN 79-91	2	9	8	4	5	9		
Spontaneous tumor pct: <= 1%	in ctrl.	- Total	-	1	0	0	0	0		
PANCREAS	(14)	IN 53-78	1	0	1	0	0	0	0.7425	0.8063
0.8360										
ISLET CELL ADENOMA [B]	(25)	IN 53-78	2	4	11	10	12	6		
		IN 92-103	1	0	0	0	1	0		
		IN 92-103	2	14	8	11	13	15		
		IN 104-105	1	0	0	2	0	0		
		IN 104-105	2	30	27	28	26	25		
Spontaneous tumor pct: <= 1%	in ctrl.	- Total	-	0	1	2	1	0		
PANCREAS	(14)	IN 104-105	1	1	0	0	0	0	1.0000	0.7456
0.8126										
SARCOMA, NOS [M]	(27)	IN 104-105	2	29	27	30	26	25		
Spontaneous tumor pct: <= 1%	in ctrl.	- Total	-	1	0	0	0	0		
PARATHYROID	(15)	IN 92-103	1	0	0	1	0	0	0.8534	0.8145
0.8526										
ADENOMA [B]	(18)	IN 92-103	2	14	8	10	14	15		
		IN 104-105	1	0	1	0	0	0		
		IN 104-105	2	30	26	30	26	25		
Spontaneous tumor pct: <= 1%	in ctrl.	- Total	-	0	1	1	0	0		
PITUITARY	(16)	IN 92-103	1	1	0	0	0	0	1.0000	0.8454
0.8791										
ADENOMA [B]	(18)	IN 92-103	2	13	8	11	14	15		
		IN 104-105	1	1	0	0	0	0		
		IN 104-105	2	29	27	30	26	25		
Spontaneous tumor pct: 2%	in ctrl.	- Total	-	2	0	0	0	0		

BEST POSSIBLE

SKELETAL MUSCLE 0.0333	(17)	IN 104-105	1	0	0	0	0	0	1	0.1812	0.0196
RHABDOMYOSARCOMA (M)	(29)	IN 104-105	2	30	27	30	26	24			
Spontaneous tumor pct: <= 1% in ctrl. - Total				-	0	0	0	0	1		
SKIN 0.7738	(18)	IN 79-91	1	0	0	0	1	1		0.7348	0.7503
FIBROSARCOMA (M)	(31)	IN 79-91	2	10	8	4	4	8			
		IN 92-103	1	0	0	1	0	0			
		IN 92-103	2	13	7	9	14	15			
		FA 56	1	0	0	1	0	0			
		FA 56	2	57	54	54	57	55			
		FA 68	1	0	1	0	0	0			
		FA 68	2	56	51	49	50	55			
		FA 94	1	1	0	0	0	0			
		FA 94	2	42	33	39	37	35			
		FA 100	1	0	0	1	0	0			
		FA 100	2	35	31	32	31	32			
		FA 102	1	0	1	0	0	0			
		FA 102	2	33	29	31	29	27			
Spontaneous tumor pct: 3% in ctrl. - Total				-	1	2	3	1	1		
SKIN 0.5820	(18)	IN 104-105	1	0	0	0	1	0		0.3696	0.4921
MYXOMA (B)	(32)	IN 104-105	2	30	27	30	25	25			
Spontaneous tumor pct: <= 1% in ctrl. - Total				-	0	0	0	1	0		
SKIN 0.0333	(18)	IN 104-105	1	0	0	0	0	1		0.1812	0.0196
KERATOACANTHOMA (B)	(34)	IN 104-105	2	30	27	30	26	24			
Spontaneous tumor pct: <= 1% in ctrl. - Total				-	0	0	0	0	1		
SKIN 0.8370	(18)	IN 92-103	1	1	0	0	0	0		1.0000	0.7806
BASAL CELL CARCINOMA (M)	(36)	IN 92-103	2	13	8	11	14	15			
Spontaneous tumor pct: <= 1% in ctrl. - Total				-	1	0	0	0	0		
SPLEEN 0.8226	(19)	IN 92-103	1	0	0	1	0	0		0.7030	0.7799
HEMANGIOSARCOMA (M)	(37)	IN 92-103	2	14	8	10	14	15			
		IN 104-105	1	0	0	1	0	0			
		IN 104-105	2	30	27	29	26	25			
Spontaneous tumor pct: <= 1% in ctrl. - Total				-	0	0	2	0	0		
SPLEEN 0.8370	(19)	IN 92-103	1	1	0	0	0	0		1.0000	0.7806
HEMANGIOMA (B)	(5)	IN 92-103	2	13	8	11	14	15			
Spontaneous tumor pct: <= 1% in ctrl. - Total				-	1	0	0	0	0		
BONE 0.7927	(2)	IN 92-103	1	0	0	1	0	0		0.6452	0.7283
OSTEOCHONDROMA (B)	(4)	IN 92-103	2	14	8	10	14	15			
Spontaneous tumor pct: <= 1% in ctrl. - Total				-	0	0	1	0	0		
STERNUM 0.8161	(20)	IN 79-91	1	1	0	0	0	0		1.0000	0.7582
ORGAN/TISSUE NAME ASYMP(CONTI AND TUMOR NAME CORR)	(ORG#)	TUMOR TIME	ROW	2x2_CONTINGENCY				EXACT	ASYMP		
	(TMR#)	TYPES STRATA	NO.	-----TABLE-----				PROB	TOTIC	NUITY	
=PR(STATISTIC.GE.OBSERVED)											
HEMANGIOMA (B)	(5)	IN 79-91	2	9	8	4	5	9			
Spontaneous tumor pct: <= 1% in ctrl. - Total				-	1	0	0	0	0		
STOMACH 0.7927	(21)	IN 92-103	1	0	0	1	0	0		0.6452	0.7283
SQUAMOUS CELL CARCINOMA (	(38)	IN 92-103	2	14	8	10	14	15			
Spontaneous tumor pct: <= 1% in ctrl. - Total				-	0	0	1	0	0		
URINARY BLADDER 0.8791	(24)	IN 92-103	1	0	1	0	0	0		1.0000	0.8454
TRANSITIONAL CELL CARCINO	(42)	IN 92-103	2	14	7	11	14	15			
		IN 104-105	1	1	0	0	0	0			

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		IN 104-105	2	29	27	30	26	25			
Spontaneous tumor pct:	2%	in ctrl.	-	Total	-	1	1	0	0	0	0
UTERUS	(25)	IN 92-103	1	1	1	0	0	0	0	1.0000 0.8652
0.8947											
HEMANGIOSARCOMA [M]	(13	)	IN 92-103	2	13	7	11	14	15		
Spontaneous tumor pct:	2%	in ctrl.	-	Total	-	1	1	0	0	0	
UTERUS	(25	)	FA 94	1	0	0	0	1	0	0	0.3850 0.5006
0.5894											
LEIOMYOSARCOMA [M]	(21	)	FA 94	2	43	33	39	36	35		
Spontaneous tumor pct:	<= 1%	in ctrl.	-	Total	-	0	0	0	1	0	
UTERUS	(25	)	IN 92-103	1	0	1	0	0	0	0	1.0000 0.7806
0.8370											
ENDOMETRIAL ADENOMA [B]	(43	)	IN 92-103	2	14	7	11	14	15		
Spontaneous tumor pct:	<= 1%	in ctrl.	-	Total	-	0	1	0	0	0	
UTERUS	(25	)	IN 92-103	1	0	0	1	0	0	0	0.6452 0.7283
0.7927											
ENDOMETRIAL CARCINOMA [M]	(44	)	IN 92-103	2	14	8	10	14	15		
Spontaneous tumor pct:	<= 1%	in ctrl.	-	Total	-	0	0	1	0	0	
UTERUS	(25	)	IN 79-91	1	1	1	0	0	0	0	1.0000 0.9527
0.9609											
ENDOMETRIAL STROMAL SARCO	(45	)	IN 79-91	2	9	7	4	5	9		
			IN 104-105	1	2	2	0	0	0		
			IN 104-105	2	28	25	30	26	25		
Spontaneous tumor pct:	5%	in ctrl.	-	Total	-	3	3	0	0	0	
UTERUS	(25	)	FA 49	1	0	0	0	1	0	0	0.3986 0.5101
0.5974											
HEMANGIOMA [B]	(5	)	FA 49	2	59	57	56	57	56		
Spontaneous tumor pct:	<= 1%	in ctrl.	-	Total	-	0	0	0	1	0	
UTERUS	(25	)	IN 53-78	1	0	1	0	0	0	0	0.5058 0.5327
0.5599											
LEIOMYOMA [B]	(6	)	IN 53-78	2	4	11	10	12	6		
			IN 92-103	1	0	1	0	2	0		
			IN 92-103	2	14	7	11	12	15		
			IN 104-105	1	2	2	0	1	2		
			IN 104-105	2	28	25	30	25	23		
Spontaneous tumor pct:	5%	in ctrl.	-	Total	-	2	4	0	3	2	
UTERUS	(25	)	IN 79-91	1	0	1	1	0	0	0	0.9644 0.9107
0.9265											
ENDOMETRIAL STROMAL POLYP	(7	)	IN 79-91	2	10	7	3	5	9		
			IN 92-103	1	1	0	0	0	0		
			IN 92-103	2	13	8	11	14	15		
			IN 104-105	1	0	1	0	0	0		
ORGAN/TISSUE NAME	(ORG#)	TUMOR TIME	ROW	2xC_CONTINGENCY	EXACT	ASYMP					
ASYMP(CONTI											
AND TUMOR NAME	(TMR#)	TYPES STRATA	NO.	-----TABLE-----	PROB	TOTIC	NUITY				
CORR)											
=PR(STATISTIC.GE.OBSERVED)											
		IN 104-105	2	30	26	30	26	25			
Spontaneous tumor pct:	3%	in ctrl.	-	Total	-	1	2	1	0	0	
VAGINA	(26	)	IN 92-103	1	0	0	0	0	1	0	0.2419 0.0426
0.0651											
SQUAMOUS CELL CARCINOMA [	(38	)	IN 92-103	2	14	8	11	14	14		
Spontaneous tumor pct:	<= 1%	in ctrl.	-	Total	-	0	0	0	0	1	
VAGINA	(26	)	IN 104-105	1	0	0	1	0	0	0	0.5870 0.6841
0.7599											
LEIOMYOMA [B]	(6	)	IN 104-105	2	30	27	29	26	25		
Spontaneous tumor pct:	<= 1%	in ctrl.	-	Total	-	0	0	1	0	0	
VAGINA	(26	)	IN 79-91	1	0	1	0	0	0	0	1.0000 0.7582
0.8161											
ENDOMETRIAL STROMAL POLYP	(7	)	IN 79-91	2	10	7	4	5	9		
Spontaneous tumor pct:	<= 1%	in ctrl.	-	Total	-	0	1	0	0	0	
MULTIPLE ORGANS	(27)	IN 92-103	1	0	1	0	2	1	0	0.6150 0.6247
0.6462											

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HISTIOCYTIC SARCOMA [M]	(46)	IN 92-103	2	13	7	11	11	14	
			IN 104-105	1	3	1	1	1	0	
			IN 104-105	2	27	26	29	25	25	
			FA 75	1	0	0	0	1	0	
			FA 75	2	54	47	46	46	50	
			FA 78	1	0	0	0	0	1	
			FA 78	2	54	43	45	45	49	
			FA 88	1	0	0	0	1	0	
			FA 88	2	49	38	43	44	43	
			FA 92	1	0	0	0	1	0	
			FA 92	2	44	35	41	39	40	
			FA 103	1	1	0	0	0	0	
			FA 103	2	31	29	31	29	27	
Spontaneous tumor pct: 5%		in ctrl. - Total	-	-	4	2	1	6	2	
MULTIPLE ORGANS	(27	)	IN 0-52	1	0	1	1	0	0	0.6833 0.6897
0.6998										
MALIGNANT LYMPHOMA [M]	(47	)	IN 0-52	2	2	4	3	3	3	
			IN 53-78	1	0	2	1	1	0	
			IN 53-78	2	4	8	6	6	5	
			IN 79-91	1	2	0	0	0	1	
			IN 79-91	2	6	5	4	4	5	
			IN 92-103	1	1	1	0	2	0	
			IN 92-103	2	9	6	10	12	14	
			IN 104-105	1	6	6	1	3	3	
			IN 104-105	2	24	21	29	23	22	
			FA 44	1	0	0	0	0	1	
			FA 44	2	59	58	57	59	57	
			FA 47	1	0	0	1	0	1	
			FA 47	2	59	57	56	59	56	
			FA 59	1	0	0	0	1	0	
			FA 59	2	57	54	53	55	55	
			FA 60	1	0	0	1	0	0	
			FA 60	2	57	54	52	55	55	
			FA 61	1	0	0	0	1	0	
			FA 61	2	57	54	52	54	55	
			FA 62	1	0	0	0	1	0	
			FA 62	2	57	54	51	53	55	
			FA 63	1	0	0	1	0	0	
			FA 63	2	57	53	50	53	55	
			FA 66	1	0	1	0	0	0	
			FA 66	2	56	52	49	50	55	
			FA 70	1	0	0	0	1	0	
			FA 70	2	56	51	49	49	54	
			FA 71	1	0	0	1	0	1	
			FA 71	2	55	51	47	49	52	
			FA 76	1	0	0	0	1	0	
			FA 76	2	54	46	46	45	50	
			FA 77	1	0	1	0	0	0	
			FA 77	2	54	44	45	45	50	
			FA 79	1	0	2	0	0	0	
			FA 79	2	54	41	45	45	49	
			FA 83	1	0	0	0	0	1	
			FA 83	2	53	40	44	45	45	
			FA 84	1	0	0	0	0	1	
			FA 84	2	53	40	44	45	43	
			FA 85	1	1	0	0	0	0	
			FA 85	2	52	40	44	45	43	
			FA 88	1	0	0	0	1	0	
			FA 88	2	49	38	43	44	43	
			FA 90	1	1	1	0	0	0	
			FA 90	2	45	36	43	41	43	
			FA 91	1	0	0	0	0	1	
			FA 91	2	44	36	42	40	41	
			FA 96	1	1	0	0	0	0	
			FA 96	2	41	33	37	35	35	
			FA 97	1	1	0	0	0	0	
			FA 97	2	38	33	37	34	35	
			FA 99	1	2	0	0	0	0	
			FA 99	2	35	31	34	31	33	
			FA 100	1	0	0	0	0	1	
			FA 100	2	35	31	33	31	31	
			FA 101	1	0	0	1	0	0	
			FA 101	2	35	31	31	30	28	
			FA 103	1	0	1	0	0	0	
			FA 103	2	32	28	31	29	27	

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Spontaneous tumor pct: 26%	in ctrl.	- Total	-	15	16	8	12	11	
MULTIPLE ORGANS	(27)) IN 92-103	1	0	0	1	0	0	0.6452 0.7283
0.7927									
MYELOID LEUKEMIA [M]	(48)	) IN 92-103	2	14	8	10	14	15	
Spontaneous tumor pct: <= 1%	in ctrl.	- Total	-	0	0	1	0	0	
CERVIX	(4)	) IN 92-103	1	0	0	0	0	1	0.3347 0.3550
0.3972									
LEIOMYOMA [B]	(6)	) IN 92-103	2	14	8	11	14	14	
		IN 104-105	1	1	0	1	1	0	
		IN 104-105	2	29	27	29	25	25	
Spontaneous tumor pct: <= 1%	in ctrl.	- Total	-	1	0	1	1	1	
CERVIX	(4)	) IN 104-105	1	0	0	1	0	0	0.5870 0.6841
0.7599									
ENDOMETRIAL STROMAL POLYP (7	) IN 104-105	2	30	27	29	26	25		
Spontaneous tumor pct: <= 1%	in ctrl.	- Total	-	0	0	1	0	0	
CLITORAL GLAND	(5)	) FA 68	1	0	0	0	0	1	0.2099 0.0296
0.0474									
SEBACEOUS CARCINOMA [M]	(8)	) FA 68	2	56	52	49	50	54	
Spontaneous tumor pct: <= 1%	in ctrl.	- Total	-	0	0	0	0	1	
JEJUNUM	(7)	) IN 92-103	1	0	0	0	0	1	0.2500 0.0458
0.0693									
SCHWANNOMA [M]	(10)	) IN 92-103	2	14	7	11	13	14	
Spontaneous tumor pct: <= 1%	in ctrl.	- Total	-	0	0	0	0	1	
LIVER	(8)	) IN 104-105	1	0	1	0	0	0	1.0000 0.7456
0.8126									
HEPATOCELLULAR ADENOMA [B (11	) IN 104-105	2	30	26	30	26	25		
Spontaneous tumor pct: <= 1%	in ctrl.	- Total	-	0	1	0	0	0	
LIVER	(8)	) IN 92-103	1	0	1	0	0	0	0.6687 0.7182
0.7667									
HEPATOCELLULAR CARCINOMA (12	) IN 92-103	2	14	7	11	13	15		
	FA 97	1	0	0	0	1	0		
	FA 97	2	39	33	37	33	35		
Spontaneous tumor pct: <= 1%	in ctrl.	- Total	-	0	1	0	1	0	
LIVER	(8)	) IN 79-91	1	1	1	0	1	0	0.8853 0.8769
0.8967									
HEMANGIOMA [B]	(5)	) IN 79-91	2	9	7	4	4	9	
	IN 92-103	1	1	0	0	0	0		
	IN 92-103	2	13	8	11	14	15		
Spontaneous tumor pct: 3%	in ctrl.	- Total	-	2	1	0	1	0	
LUNG	(9)	) IN 0-52	1	0	0	1	0	0	0.1506 0.1458
0.1582									
BRONCHOALVEOLAR ADENOMA [(16	) IN 0-52	2	2	5	4	3	5		
	IN 53-78	1	0	0	0	0	1		
	IN 53-78	2	4	12	10	12	5		
	IN 92-103	1	0	0	1	1	2		
	IN 92-103	2	14	8	10	13	13		
	IN 104-105	1	2	2	3	4	2		
	IN 104-105	2	28	25	27	22	23		
Spontaneous tumor pct: 3%	in ctrl.	- Total	-	2	2	5	5	5	
LUNG	(9)	) IN 53-78	1	0	2	0	0	1	0.7966 0.7986
0.8118									
BRONCHOALVEOLAR CARCINOMA (17	) IN 53-78	2	4	9	10	12	5		
	IN 79-91	1	0	0	1	1	0		
	IN 79-91	2	10	8	3	4	9		
	IN 92-103	1	2	1	1	0	1		
	IN 92-103	2	12	7	8	13	13		
	IN 104-105	1	2	2	1	2	0		
	IN 104-105	2	28	25	29	24	25		
	FA 72	1	0	1	0	0	0		
	FA 72	2	55	49	47	49	52		
	FA 93	1	0	0	0	1	0		
	FA 93	2	43	35	39	37	38		
	FA 98	1	0	0	1	0	0		
	FA 98	2	38	32	35	32	34		
	FA 100	1	0	0	0	0	1		

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	FA 100	2	35	31	33	31	31
	FA 103	1	0	0	1	0	0
	FA 103	2	32	29	30	29	27
Spontaneous tumor pct: 8%	in ctrl. - Total	-	4	6	5	4	3

APPEARS THIS WAY ON ORIGINAL

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Table 4c
Analysis of Carcinogenic Potential in Male Rat
Test of Dose-Response (Tumor) Positive Linear Trend
Study No.

Run Date & Time: March 11, 1999 (9:33)

Source: C:\DATA\rm1.dat

Note: Dose Levels Included: CTRL1 CTRL2 LOW MED HIGH (0 0 0.05 0.3 2)
 Missing value in Tumor-Caused Death is treated as tumor not causing death
 Tumor Type: IN: Incidental (nonfatal) tumor, FA: Fatal tumor.

ORGAN/TISSUE NAME AND TUMOR NAME	(ORG#) (TMR#)	TUMOR TIME TYPES STRATA	ROW NO.	2xC_CONTINGENCY -----TABLE-----	EXACT PROB	ASYMP TOTIC	ASYMP(CONTI NUITY CORR)
ADRENAL	(1	) IN 53-78	1	1 1 0 0 0	0.8773	0.8480	0.8915
PHAECHROMOCYTOMA [B]	(1	) IN 53-78	2	7 5 11 7 13			
		IN 92-104	1	0 2 1 1 1			
		IN 92-104	2	14 15 13 16 14			
		IN 105-106	1	2 0 3 0 0			
		IN 105-106	2	21 19 24 25 10			
Spontaneous tumor pct: 5%		in ctrl. - Total	-	3 3 4 1 1			
ADRENAL	(1	) IN 79-91	1	1 0 0 0 0	0.8086	0.8147	0.9069
PHAECHROMOCYTOMA [M]	(2	) IN 79-91	2	14 14 6 8 18			
		IN 92-104	1	0 0 1 0 0			
		IN 92-104	2	14 17 13 17 15			
Spontaneous tumor pct: <= 1%		in ctrl. - Total	-	1 0 1 0 0			
LIVER	(10	) IN 92-104	1	0 1 1 1 0	0.7179	0.8013	0.8794
HEPATOCELLULAR ADENOMA [B]	(16	) IN 92-104	2	14 16 13 16 15			
		IN 105-106	1	1 0 0 1 0			
		IN 105-106	2	22 19 27 24 10			
Spontaneous tumor pct: 2%		in ctrl. - Total	-	1 1 1 2 0			
LIVER	(10	) IN 53-78	1	0 0 1 0 0	0.8803	0.8565	0.9219
HEPATOCELLULAR CARCINOMA	(17	) IN 53-78	2	8 6 10 7 13			
		IN 92-104	1	0 0 1 0 0			
		IN 92-104	2	14 17 13 17 15			
		IN 105-106	1	0 1 1 0 0			
		IN 105-106	2	23 18 26 25 10			
Spontaneous tumor pct: <= 1%		in ctrl. - Total	-	0 1 3 0 0			
LUNG	(11	) IN 105-106	1	0 0 0 1 0	0.3365	0.4843	0.7970
ADENOCARCINOMA [M]	(8	) IN 105-106	2	23 19 27 24 10			
Spontaneous tumor pct: <= 1%		in ctrl. - Total	-	0 0 0 1 0			
LYMPH NODE - MESENTERIC	(12	) IN 105-106	1	0 0 0 1 0	0.3365	0.4843	0.7970
HEMANGIOMA [B]	(21	) IN 105-106	2	23 19 27 24 10			
Spontaneous tumor pct: <= 1%		in ctrl. - Total	-	0 0 0 1 0			
MAMMARY GLAND	(13	) IN 79-91	1	1 0 0 0 0	1.0000	0.8965	0.9439
FIBROADENOMA [B]	(22) IN 79-91	2	14 14 6 8 18			
		IN 92-104	1	0 1 0 0 0			
		IN 92-104	2	14 16 14 17 15			

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ORGAN/TISSUE NAME AND TUMOR NAME	(ORG#) (TMR#)	TUMOR TIME TYPES STRATA	ROW NO.	2x2 CONTINGENCY -----TABLE-----	EXACT PROB	ASYMP TOTIC	ASYMP(CONTI NUITY CORR)	=PR(STATISTIC.GE.OBSERVED)
		IN 105-106 1	1	2 0 0 0				
		IN 105-106 2	2	22 17 27 25 10				
Spontaneous tumor pct: 4%		in ctrl. - Total	-	2 3 0 0 0				
MAMMARY GLAND	(13	) IN 79-91	1	1 0 0 0 0	1.0000	0.7623	0.8991	
ADENOCARCINOMA [M]	(23	) IN 79-91	2	14 14 6 8 18				
Spontaneous tumor pct: <= 1%		in ctrl. - Total	-	1 0 0 0 0				
PANCREAS	(15	) IN 79-91	1	1 0 1 3 1	0.9134	0.9062	0.9264	
ISLET CELL ADENOMA [B]	(26	) IN 79-91	2	14 14 5 5 17				
		IN 92-104 1	1	4 2 3 0 2				
		IN 92-104 2	2	10 14 11 17 13				
		IN 105-106 1	1	2 5 4 3 0				
		IN 105-106 2	2	21 14 23 22 10				
		FA 100 1	1	0 1 0 0 0				
		FA 100 2	2	33 26 34 35 18				
Spontaneous tumor pct: 13%		in ctrl. - Total	-	7 8 8 6 3				
PANCREAS	(15	) FA 100	1	0 1 0 0 0	1.0000	0.6970	0.9035	
ISLET CELL CARCINOMA [M]	(27	) FA 100	2	33 26 34 35 18				
Spontaneous tumor pct: <= 1%		in ctrl. - Total	-	0 1 0 0 0				
PANCREAS	(15	) IN 79-91	1	0 1 0 0 0	0.8951	0.8779	0.9281	
ACINAR CELL ADENOMA [B]	(28	) IN 79-91	2	15 13 6 8 18				
		IN 92-104 1	1	0 2 1 0 0				
		IN 92-104 2	2	14 15 13 17 15				
		IN 105-106 1	1	0 0 0 1 0				
		IN 105-106 2	2	23 19 27 24 10				
Spontaneous tumor pct: 3%		in ctrl. - Total	-	0 3 1 1 0				
PITUITARY	(16	) IN 53-78	1	3 1 2 0 3	0.7650	0.7659	0.7879	
ADENOMA [B]	(29	) IN 53-78	2	4 4 9 7 10				
		IN 79-91 1	1	6 1 1 3 6				
		IN 79-91 2	2	5 10 4 4 10				
		IN 92-104 1	1	6 9 3 8 6				
		IN 92-104 2	2	6 6 7 6 8				
		IN 105-106 1	1	13 10 15 9 4				
		IN 105-106 2	2	10 9 12 16 6				
		FA 63 1	1	1 0 0 0 0				
		FA 63 2	2	57 56 55 54 52				
		FA 74 1	1	0 1 0 0 0				
		FA 74 2	2	53 52 50 51 47				
		FA 79 1	1	0 1 0 0 0				
		FA 79 2	2	52 49 47 50 43				
		FA 81 1	1	0 0 1 0 0				
		FA 81 2	2	50 48 45 48 42				
		FA 82 1	1	0 1 0 0 0				
		FA 82 2	2	50 46 45 48 41				
		FA 83 1	1	0 0 0 0 1				
		FA 83 2	2	49 44 45 47 39				
		FA 84 1	1	1 0 0 0 0				
		FA 84 2	2	48 44 45 46 39				
		FA 86 1	1	1 1 0 0 0				
		FA 86 2	2	46 42 44 44 36				

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ORGAN/TISSUE NAME AND TUMOR NAME	(ORG#) (TMR#)	TUMOR TIME TYPES STRATA	ROW NO.	2x2 CONTINGENCY -----TABLE-----	EXACT PROB	ASYMP TOTIC	ASYMP(CONTI NUITY CORR)	=PR(STATISTIC.GE.OBSERVED)
		FA 87	1	1 0 0 0	0			
		FA 87	2	43 40 43 44 34				
		FA 90	1	0 0 0 0 1				
		FA 90	2	40 38 42 43 28				
		FA 91	1	1 0 0 1 0				
		FA 91	2	37 36 41 42 27				
		FA 94	1	1 0 0 1 0				
		FA 94	2	36 34 40 41 25				
		FA 95	1	0 0 1 0 0				
		FA 95	2	35 34 39 39 23				
		FA 96	1	0 0 2 0 0				
		FA 96	2	35 32 37 38 22				
		FA 97	1	0 0 0 0 1				
		FA 97	2	35 30 36 37 21				
		FA 98	1	0 0 1 1 0				
		FA 98	2	35 30 35 35 20				
		FA 100	1	0 0 0 1 0				
		FA 100	2	33 27 34 34 18				
		FA 101	1	0 1 0 0 0				
		FA 101	2	33 24 33 33 18				
		FA 102	1	1 0 0 0 0				
		FA 102	2	30 24 33 31 18				
		FA 103	1	0 1 0 0 0				
		FA 103	2	29 23 33 31 17				
Spontaneous tumor pct: 52% in ctrl. - Total			-	35 27 26 24 22				
PITUITARY	(16)	IN 92-104	1	0 1 0 0 0	1.0000	0.7286	0.8968	
ADENOMA [B], pars interme	(30)	IN 92-104	2	14 16 14 17 15				
Spontaneous tumor pct: <= 1% in ctrl. - Total			-	0 1 0 0 0				
SKELETAL MUSCLE	(17)	IN 105-106	1	0 0 1 0 0	0.5962	0.6539	0.8973	
HEMANGIOSARCOMA [M]	(18)	IN 105-106	2	23 19 26 25 10				
Spontaneous tumor pct: <= 1% in ctrl. - Total			-	0 0 1 0 0				
SKELETAL MUSCLE	(17)	IN 53-78	1	0 0 0 0 1	0.5660	0.4772	0.6038	
FIBROSARCOMA [M]	(31)	IN 53-78	2	8 6 10 7 12				
		IN 92-104	1	0 1 0 0 0				
		IN 92-104	2	14 16 14 17 15				
		FA 56	1	0 0 1 0 0				
		FA 56	2	59 56 57 55 55				
		FA 88	1	0 1 0 0 0				
		FA 88	2	41 39 43 44 31				
Spontaneous tumor pct: 2% in ctrl. - Total			-	0 2 1 0 1				
SKIN	(18)	IN 53-78	1	0 0 0 0 1	0.2889	0.0595	0.1618	
HEMANGIOMA [B]	(21)	IN 53-78	2	8 6 11 7 12				
Spontaneous tumor pct: <= 1% in ctrl. - Total			-	0 0 0 0 1				
SKIN	(18)	IN 53-78	1	0 0 0 0 1	0.1661	0.1627	0.1977	
LIPOMA [B]	(32)	IN 53-78	2	8 6 11 6 12				
		IN 79-91	1	0 1 1 0 2				
		IN 79-91	2	15 13 5 8 16				
		IN 92-104	1	1 1 0 6 1				

BEST POSSIBLE

ORGAN/TISSUE NAME AND TUMOR NAME	(ORG#) (TMR#)	IN 92-104 TUMOR TIME TYPES STRATA	2 ROW	13 15 14 10 14 2xC_CONTINGENCY -----TABLE-----	EXACT PROB	ASYMP TOTIC	ASYMP (CONTI NUITY CORR)	=PR(STATISTIC.GE.OBSERVED)
		IN 105-106	1	2 1 4 5 2				
		IN 105-106	2	21 18 23 20 8				
		FA 62	1	0 0 0 1 0				
		FA 62	2	59 56 55 54 52				
		FA 95	1	0 0 0 1 0				
		FA 95	2	35 34 40 38 23				
		FA 96	1	0 1 0 0 0				
		FA 96	2	35 31 39 38 22				
Spontaneous tumor pct: 6%		in ctrl. - Total	-	3 4 5 13 6				
SKIN FIBROMA [B]	(18 (33)	) IN 53-78	1	1 0 1 0 0	0.9990	0.9971	0.9979	
		) IN 53-78	2	6 6 9 7 13				
		IN 79-91	1	2 1 2 1 0				
		IN 79-91	2	11 13 4 7 18				
		IN 92-104	1	1 5 3 1 2				
		IN 92-104	2	12 10 10 15 13				
		IN 105-106	1	5 5 4 6 0				
		IN 105-106	2	18 14 23 19 10				
		FA 53	1	1 0 0 0 0				
		FA 53	2	59 56 58 57 56				
		FA 77	1	0 0 1 0 0				
		FA 77	2	52 50 48 50 45				
		FA 80	1	1 0 0 0 0				
		FA 80	2	50 48 47 48 42				
		FA 87	1	1 0 0 0 0				
		FA 87	2	43 40 43 44 34				
		FA 94	1	0 0 0 1 0				
		FA 94	2	37 34 40 41 25				
		FA 95	1	0 2 0 0 0				
		FA 95	2	35 32 40 39 23				
		FA 101	1	1 0 0 0 0				
		FA 101	2	32 25 33 33 18				
		FA 103	1	0 0 1 0 0				
		FA 103	2	29 24 32 31 17				
Spontaneous tumor pct: 22%		in ctrl. - Total	-	13 13 12 9 2				
SKIN FIBROSARCOMA [M]	(18 (34)	) FA 65	1	0 0 2 0 0	0.1502	0.1497	0.2238	
		) FA 65	2	57 55 53 54 52				
		FA 73	1	0 0 0 1 0				
		FA 73	2	54 53 50 51 47				
		FA 79	1	1 0 0 0 0				
		FA 79	2	51 50 47 50 43				
		FA 87	1	0 0 0 0 1				
		FA 87	2	44 40 43 44 33				
		FA 94	1	0 0 0 0 1				
		FA 94	2	37 34 40 42 24				
Spontaneous tumor pct: <= 1%		in ctrl. - Total	-	1 0 2 1 2				
SKIN SARCOMA, NOS [M]	(18 (35)	) IN 92-104	1	1 0 0 0 0	0.6469	0.7182	0.8508	
		) IN 92-104	2	13 17 14 17 15				
		FA 49	1	0 0 0 1 0				
		FA 49	2	60 56 58 57 56				

BEST POSSIBLE

Spontaneous tumor pct: <= 1% in ctrl. - Total - 1 0 0 1 0

ORGAN/TISSUE NAME AND TUMOR NAME	(ORG#) (TMR#)	TUMOR TIME TYPES STRATA	ROW NO.	2x2 CONTINGENCY -----TABLE-----	EXACT PROB	ASYMP TOTIC	ASYMP(CONTI NUITY CORR)
SKIN	(18	) FA 76	1	0 1 0 0 0	1.0000	0.7209	0.8948
TRICHOEPITHELIOMA [B]	(36	) FA 76	2	52 51 49 51 46			
Spontaneous tumor pct: <= 1% in ctrl. - Total			-	0 1 0 0 0			
SKIN	(18	) IN 105-106	1	0 1 0 2 0	0.3902	0.5932	0.7713
SQUAMOUS CELL PAPILLOMA [	(37	) IN 105-106	2	23 18 27 23 10			
Spontaneous tumor pct: <= 1% in ctrl. - Total			-	0 1 0 2 0			
SKIN	(18	) IN 92-104	1	0 1 1 2 0	0.6558	0.7704	0.8536
SQUAMOUS CELL CARCINOMA [	(38	) IN 92-104	2	14 16 13 15 15			
		IN 105-106	1	0 0 0 1 0			
		IN 105-106	2	23 19 27 24 10			
Spontaneous tumor pct: <= 1% in ctrl. - Total			-	0 1 1 3 0			
SKIN	(18	) IN 53-78	1	0 0 1 0 0	0.6390	0.7059	0.7749
KERATOACANTHOMA [B]	(39	) IN 53-78	2	8 6 10 7 13			
		IN 92-104	1	0 1 1 1 1			
		IN 92-104	2	14 16 13 16 14			
		IN 105-106	1	1 1 3 3 0			
		IN 105-106	2	22 18 24 22 10			
Spontaneous tumor pct: 3% in ctrl. - Total			-	1 2 5 4 1			
SKIN	(18	) FA 66	1	0 0 0 1 0	0.3911	0.5797	0.8044
HEMANGIOSARCOMA [M]	(40	) FA 66	2	57 55 53 53 52			
Spontaneous tumor pct: <= 1% in ctrl. - Total			-	0 0 0 1 0			
SPINAL CORD	(19	) FA 86	1	0 0 1 0 0	0.5794	0.6898	0.8819
SCHWANNOMA [M]	(12	) FA 86	2	47 43 43 44 36			
Spontaneous tumor pct: <= 1% in ctrl. - Total			-	0 0 1 0 0			
SPINAL CORD	(19	) FA 90	1	0 0 1 0 0	0.5937	0.6831	0.8845
OSTEOMA [B]	(42	) FA 90	2	40 36 41 43 29			
Spontaneous tumor pct: <= 1% in ctrl. - Total			-	0 0 1 0 0			
SPINAL CORD	(19	) IN 105-106	1	0 0 1 0 0	0.5962	0.6539	0.8973
ASTROCYTOMA [M]	(5	) IN 105-106	2	23 19 26 25 10			
Spontaneous tumor pct: <= 1% in ctrl. - Total			-	0 0 1 0 0			
BONE	(2	) IN 105-106	1	0 0 0 1 0	0.3365	0.4843	0.7970
OSTEOSARCOMA [M]	(4	) IN 105-106	2	23 19 27 24 10			
Spontaneous tumor pct: <= 1% in ctrl. - Total			-	0 0 0 1 0			
STOMACH	(21	) IN 105-106	1	0 0 0 1 0	0.3365	0.4843	0.7970
ADENOMA [B]	(19	) IN 105-106	2	23 19 27 24 10			
Spontaneous tumor pct: <= 1% in ctrl. - Total			-	0 0 0 1 0			
TESTIS	(22	) IN 79-91	1	0 0 0 1 2	0.4184	0.4376	0.5237
INTERSTITIAL CELL TUMOR [	(43	) IN 79-91	2	15 14 6 7 16			
		IN 92-104	1	0 1 0 0 0			
		IN 92-104	2	14 16 14 17 15			

BEST POSSIBLE

ORGAN/TISSUE NAME AND TUMOR NAME	(ORG#) (TMR#)	TUMOR TIME TYPES STRATA	ROW NO.	2xC_CONTINGENCY -----TABLE-----	EXACT PROB	ASYMP TOTIC	ASYMP(CONTI NUITY CORR)	=PR(STATISTIC.GE.OBSERVED)
		IN 105-106 1		3 2 1 2 0				
		IN 105-106 2		20 17 26 23 10				
Spontaneous tumor pct: 5%		in ctrl. - Total		3 3 1 3 2				
TESTIS	(22)	) IN 53-78	1	0 0 0 0 1	0.2505	0.2070	0.3497	
MESOTHELIOMA [M]	(44)	) IN 53-78	2	8 6 11 7 12				
		IN 92-104	1	0 0 1 0 0				
		IN 92-104	2	14 17 13 17 15				
Spontaneous tumor pct: <= 1%		in ctrl. - Total		0 0 1 0 1				
TESTIS	(22)	) IN 92-104	1	1 0 0 0 0	1.0000	0.7286	0.8968	
SARCOMA, NOS [M]	(9)	) IN 92-104	2	13 17 14 17 15				
Spontaneous tumor pct: <= 1%		in ctrl. - Total		1 0 0 0 0				
THYMUS	(23)	) IN 105-106	1	0 0 1 1 0	0.3659	0.6000	0.8084	
THYMOMA [B]	(45)	) IN 105-106	2	23 19 26 24 10				
Spontaneous tumor pct: <= 1%		in ctrl. - Total		0 0 1 1 0				
THYMUS	(23)	) IN 92-104	1	1 0 0 0 0	1.0000	0.7286	0.8968	
THYMOMA [M]	(46)	) IN 92-104	2	13 17 14 17 15				
Spontaneous tumor pct: <= 1%		in ctrl. - Total		1 0 0 0 0				
THYROID	(24)	) IN 79-91	1	0 2 1 0 0	0.9278	0.9222	0.9380	
C-CELL ADENOMA [B]	(47)	) IN 79-91	2	14 10 5 8 17				
		IN 92-104	1	7 4 4 3 5				
		IN 92-104	2	7 13 10 13 10				
		IN 105-106	1	7 4 7 6 0				
		IN 105-106	2	16 15 20 19				
Spontaneous tumor pct: 20%		in ctrl. - Total		14 10 12 9 5				
THYROID	(24)	) IN 79-91	1	0 0 0 1 0	0.4388	0.6505	0.8286	
C-CELL CARCINOMA [M]	(48)	) IN 79-91	2	14 12 6 7 17				
Spontaneous tumor pct: <= 1%		in ctrl. - Total		0 0 0 1 0				
THYROID	(24)	) IN 53-78	1	1 0 1 1 0	0.8754	0.8625	0.9012	
FOLLICULAR CELL ADENOMA [	(49)	) IN 53-78	2	7 5 10 6 13				
		IN 79-91	1	0 1 0 0 1				
		IN 79-91	2	14 11 6 8 16				
		IN 92-104	1	1 0 1 1 0				
		IN 92-104	2	13 17 13 15 15				
		IN 105-106	1	0 3 0 0 0				
		IN 105-106	2	23 16 27 25 10				
Spontaneous tumor pct: 5%		in ctrl. - Total		2 4 2 2 1				
THYROID	(24)	) IN 79-91	1	0 0 0 0 1	0.0589	0.0070	0.0211	
FOLLICULAR CELL CARCINOMA	(50)	) IN 79-91	2	14 12 6 8 16				
		IN 92-104	1	0 0 0 0 1				
		IN 92-104	2	14 17 14 16 14				
Spontaneous tumor pct: <= 1%		in ctrl. - Total		0 0 0 0 2				
MULTIPLE ORGANS	(28)	) IN 92-104	1	1 0 0 2 1	0.0574	0.0531	0.0776	
HISTIOCYTIC SARCOMA [M]	(54)	) IN 92-104	2	12 17 14 14 14				
		IN 105-106	1	0 1 0 2 0				
		IN 105-106	2	23 18 27 23 10				

BEST POSSIBLE

ORGAN/TISSUE NAME AND TUMOR NAME	(ORG#) (TMR#)	TUMOR TIME TYPES STRATA	ROW NO.	2x2 CONTINGENCY TABLE	EXACT PROB	ASYMP TOTIC	ASYMP (CONTI NUITY CORR)	=PR (STATISTIC.GE.OBSERVED)
		FA 75	1	0 0 0 0 1				
		FA 75	2	52 52 49 51 46				
		FA 86	1	0 1 0 0 0				
		FA 86	2	47 42 44 44 36				
		FA 89	1	0 0 1 0 0				
		FA 89	2	40 38 42 43 29				
		FA 90	1	0 0 0 0 1				
		FA 90	2	40 38 42 43 28				
		FA 91	1	0 0 0 0 1				
		FA 91	2	38 36 41 43 26				
		FA 96	1	0 0 0 1 0				
		FA 96	2	35 32 39 37 22				
		FA 103	1	1 0 0 0 0				
		FA 103	2	28 24 33 31 17				
Spontaneous tumor pct: 3% in ctrl. - Total			-	2 2 1 5 4				
MULTIPLE ORGANS	(28	) IN 92-104	1	0 0 0 1 1	0.2266	0.2362	0.2999	
MALIGNANT LYMPHOMA [M]	(55	) IN 92-104	2	14 15 14 15 13				
		IN 105-108	1	2 1 1 0 1				
		IN 105-108	2	21 18 26 25 9				
		FA 66	1	0 0 0 1 0				
		FA 66	2	57 55 53 53 52				
		FA 76	1	0 1 0 0 0				
		FA 76	2	52 51 49 51 46				
		FA 85	1	0 0 0 1 0				
		FA 85	2	47 44 44 44 38				
		FA 86	1	1 0 0 0 0				
		FA 86	2	46 43 44 44 36				
		FA 96	1	0 1 0 0 0				
		FA 96	2	35 31 39 38 22				
		FA 97	1	0 0 0 1 0				
		FA 97	2	35 30 36 36 22				
		FA 98	1	0 1 0 0 0				
		FA 98	2	35 29 36 36 20				
		FA 103	1	0 0 0 0 1				
		FA 103	2	29 24 33 31 16				
Spontaneous tumor pct: 6% in ctrl. - Total			-	3 4 1 4 3				
MULTIPLE ORGANS	(28	) FA 94	1	1 0 0 0 0	1.0000	0.7054	0.9004	
MYELOID LEUKEMIA [M]	(56	) FA 94	2	36 34 40 42 25				
Spontaneous tumor pct: <= 1% in ctrl. - Total			-	1 0 0 0 0				
BRAIN	(3	) FA 73	1	1 0 0 0 0	1.0000	0.7205	0.8947	
ASTROCYTOMA [M]	(5	) FA 73	2	53 53 50 52 47				
Spontaneous tumor pct: <= 1% in ctrl. - Total			-	1 0 0 0 0				
BRAIN	(3	) IN 92-104	1	1 0 0 0 0	1.0000	0.8334	0.9164	
MENINGIOMA [B]	(6	) IN 92-104	2	13 17 14 17 15				
		IN 105-108	1	1 0 0 0 0				
		IN 105-108	2	22 19 27 25 10				
		FA 79	1	0 1 0 0 0				

BEST POSSIBLE

		FA 79	2	52	49	47	50	43			
Spontaneous tumor pct: 3%		in ctrl.	- Total	-	2	1	0	0			
BRAIN	(3)	FA 98	1	1	0	0	0	0	1.0000	0.6977	0.9016
ORGAN/TISSUE NAME	(ORG#)	TUMOR TIME	ROW	2xC	CONTINGENCY			EXACT	ASYMP	ASYMP(CONTI	
AND TUMOR NAME	(TMR#)	TYPES STRATA	NO.	-----TABLE-----				PROB	TOTIC	NUITY CORR)	
=PR(STATISTIC.GE.OBSERVED)											
MEDULLOBLASTOMA [M]	(7)	FA 98	2	34	30	36	36	20			
Spontaneous tumor pct: <= 1%	in ctrl.	- Total	-	1	0	0	0	0			
DUODENUM	(4)	IN 92-104	1	0	0	0	1	0	0.4211	0.5882	0.8092
ADENOCARCINOMA [M]	(8)	IN 92-104	2	14	16	14	16	15			
Spontaneous tumor pct: <= 1%	in ctrl.	- Total	-	0	0	0	1	0			
EPIDIDYMIS	(5)	IN 53-78	1	0	0	1	0	1	0.4641	0.3558	0.5002
MESOTHELIOMA [M]	(10)	IN 53-78	2	8	6	10	7	12			
		IN 105-106	1	1	0	0	0	0			
		IN 105-106	2	22	19	27	25	10			
Spontaneous tumor pct: <= 1%	in ctrl.	- Total	-	1	0	1	0	1			
EPIDIDYMIS	(5)	IN 105-106	1	0	0	0	1	0	0.3365	0.4843	0.7970
FIBROMA [B], unilateral	(11)	IN 105-106	2	23	19	27	24	10			
Spontaneous tumor pct: <= 1%	in ctrl.	- Total	-	0	0	0	1	0			
EPIDIDYMIS	(5)	IN 92-104	1	1	0	0	0	0	1.0000	0.7286	0.8968
SARCOMA, NOS [M]	(9)	IN 92-104	2	13	17	14	17	15			
Spontaneous tumor pct: <= 1%	in ctrl.	- Total	-	1	0	0	0	0			
HEART	(6)	IN 105-106	1	0	0	1	0	0	0.1397	0.0690	0.1735
SCHWANNOMA [M]	(12)	IN 105-106	2	23	19	26	25	10			
		FA 87	1	0	0	0	0	1			
		FA 87	2	44	40	43	44	33			
Spontaneous tumor pct: <= 1%	in ctrl.	- Total	-	0	0	1	0	1			
ILEUM	(7)	IN 92-104	1	0	0	0	0	1	0.2000	0.0239	0.0914
LEIOMYOMA [B]	(13)	IN 92-104	2	13	13	13	13	12			
Spontaneous tumor pct: <= 1%	in ctrl.	- Total	-	0	0	0	0	1			
JEJUNUM	(8)	FA 90	1	0	1	0	0	0	1.0000	0.7060	0.8979
ADENOCARCINOMA [M]	(8)	FA 90	2	38	35	42	40	27			
Spontaneous tumor pct: <= 1%	in ctrl.	- Total	-	0	1	0	0	0			
KIDNEY	(9)	IN 79-91	1	0	0	1	0	0	0.5246	0.7446	0.8888
TRANSITIONAL CELL PAPILO	(14)	IN 79-91	2	15	14	5	8	18			
Spontaneous tumor pct: <= 1%	in ctrl.	- Total	-	0	0	1	0	0			
KIDNEY	(9)	FA 72	1	1	0	0	0	0	1.0000	0.7204	0.8943
RENAL MESENCHYMAL TUMOR [	(15)	FA 72	2	55	54	50	52	48			
Spontaneous tumor pct: <= 1%	in ctrl.	- Total	-	1	0	0	0	0			

Table 4d

Analysis of Carcinogenic Potential in Female Rat
 Test of Dose-Response (Tumor) Positive Linear

Run Date & Time: March 11, 1999 (10:36)

Source: C:\DATA\rf1.dat

Note: Dose Levels Included: CTRL1 CTRL2 LOW MED HIGH (0 0 0.05 0.3 2)
 Missing value in Tumor-Caused Death is treated as tumor not causing death
 Tumor Type: IN: Incidental (nonfatal) tumor, FA: Fatal tumor.

ORGAN/TISSUE NAME AND TUMOR NAME	(ORG#) (TMR#)	TUMOR TIME TYPES STRATA	ROW NO.	2x2 CONTINGENCY -----TABLE-----	EXACT PROB	ASYMP TOTIC	ASYMP(CONTI NUITY CORR)
ADRENAL	(1)	) IN 92-104	1	0 0 0 1 0	0.1476	0.1510	0.2740
PHAECHROMOCYTOMA [B]	(1)	) IN 92-104	2	15 13 19 15 14			
		IN 105-106	1	0 0 0 0 1			
		IN 105-108	2	13 12 12 11 20			
Spontaneous tumor pct: <= 1% in ctrl. - Total				-	0 0 0 1 1		
ADRENAL	(1)	) IN 105-106	1	1 0 0 0 0	1.0000	0.7729	0.9051
PHAECHROMOCYTOMA [M]	(2)	) IN 105-108	2	12 12 12 11 21			
Spontaneous tumor pct: <= 1% in ctrl. - Total				-	1 0 0 0 0		
ADRENAL	(1)	) IN 92-104	1	0 0 1 0 1	0.6330	0.5384	0.6567
CORTICAL ADENOMA [B]	(3)	) IN 92-104	2	15 13 18 16 13			
		IN 105-106	1	2 0 0 0 0			
		IN 105-108	2	11 12 12 11 21			
Spontaneous tumor pct: 2% in ctrl. - Total				-	2 0 1 0 1		
LIVER	(10)	) IN 92-104	1	0 2 3 1 1	0.3676	0.3658	0.4587
HEPATOCELLULAR ADENOMA [B]	(16)	) IN 92-104	2	15 11 16 15 13			
		IN 105-106	1	0 0 0 0 1			
		IN 105-108	2	13 12 12 11 20			
Spontaneous tumor pct: 2% in ctrl. - Total				-	0 2 3 1 2		
LIVER	(10)	) IN 53-78	1	0 1 0 0 0	1.0000	0.7143	0.8979
HEPATOCELLULAR CARCINOMA	(17)	) IN 53-78	2	15 12 9 15 10			
Spontaneous tumor pct: <= 1% in ctrl. - Total				-	0 1 0 0 0		
LIVER	(10)	) FA 25	1	1 0 0 0 0	1.0000	0.7284	0.8954
HEMANGIOSARCOMA [M]	(18)	) FA 25	2	58 60 58 60 59			
Spontaneous tumor pct: <= 1% in ctrl. - Total				-	1 0 0 0 0		
LUNG	(11)	) IN 105-106	1	1 0 0 0 0	1.0000	0.7729	0.9051
ADENOMA [B]	(19)	) IN 105-108	2	12 12 12 11 21			
Spontaneous tumor pct: <= 1% in ctrl. - Total				-	1 0 0 0 0		
LYMPH NODE - MESENTERIC	(12)	) IN 92-104	1	0 1 0 0 0	1.0000	0.7219	0.8982
SARCOMA, NOS[M]	(20)	) IN 92-104	2	15 12 19 16 14			
Spontaneous tumor pct: <= 1% in ctrl. - Total				-	0 1 0 0 0		
MAMMARY GLAND	(13)	) IN 53-78	1	0 0 1 0 0	0.5261	0.6043	0.6971
ADENOMA [B]	(19)	) IN 53-78	2	15 13 8 15 10			
		IN 79-91	1	1 0 0 0 0			
		IN 79-91	2	14 19 15 16 13			
		IN 92-104	1	0 1 1 1 1			
MAMMARY GLAND	(13)	) IN 0-52	1	1 0 1 0 0	0.9998	0.9996	0.9997

BEST POSSIBLE

ORGAN/TISSUE NAME AND TUMOR NAME (ORG#) (TMR#) TUMOR TIME TYPES STRATA ROW NO. 2xC_CONTINGENCY -----TABLE----- EXACT ASYMP ASYMP(CONTI PROB TOTIC NUIITY CORR) =PR(STATISTIC.GE.OBSERVED

IN 92-104 2 15 12 18 15 13

IN 105-106 1 0 0 0 1 0
 IN 105-106 2 13 12 12 10 21
 Spontaneous tumor pct: 2% in ctrl. - Total - 1 1 2 2 1

FIBROADENOMA (B) (22) IN 0-52 2 1 2 4 1 2
 IN 53-78 1 1 1 3 3 2
 IN 53-78 2 7 6 4 6 7
 IN 79-91 1 3 11 3 6 5
 IN 79-91 2 6 4 8 7 6
 IN 92-104 1 10 5 13 4 6
 IN 92-104 2 3 3 1 6 6
 IN 105-106 1 10 8 8 6 10
 IN 105-106 2 3 4 4 5 11
 FA 49 1 0 1 0 0 0
 FA 49 2 58 57 55 59 58
 FA 51 1 0 0 0 1 0
 FA 51 2 58 57 55 58 58
 FA 55 1 1 0 0 1 0
 FA 55 2 57 57 55 57 58
 FA 57 1 1 0 0 0 0
 FA 57 2 56 57 55 57 58
 FA 60 1 1 0 0 1 0
 FA 60 2 55 56 55 56 57
 FA 62 1 0 3 0 0 0
 FA 62 2 54 53 54 55 57
 FA 64 1 0 1 0 0 1
 FA 64 2 54 50 54 55 55
 FA 65 1 0 0 1 0 0
 FA 65 2 54 50 53 55 55
 FA 68 1 1 0 0 0 0
 FA 68 2 51 50 51 53 54
 FA 69 1 0 1 0 0 0
 FA 69 2 51 49 50 52 54
 FA 70 1 0 0 0 1 0
 FA 70 2 50 49 50 50 54
 FA 71 1 1 0 0 2 0
 FA 71 2 49 48 49 48 53
 FA 72 1 1 0 1 0 0
 FA 72 2 47 47 48 48 53
 FA 73 1 0 0 0 1 0
 FA 73 2 47 47 47 47 51
 FA 75 1 1 0 0 0 0
 FA 75 2 45 47 47 45 50
 FA 78 1 0 1 0 0 0
 FA 78 2 45 44 48 43 49
 FA 79 1 2 0 1 0 1
 FA 79 2 41 44 45 43 47
 FA 80 1 1 1 0 0 0
 FA 80 2 39 42 43 42 47
 FA 82 1 0 1 0 0 0
 FA 82 2 36 37 41 40 45
 FA 83 1 0 1 0 1 0
 FA 83 2 36 34 40 37 43

BEST POSSIBLE

MAMMARY GLAND (13) IN 0-52 1 1 0 1 0 0 0.9998 0.9996 0.9997

ORGAN/TISSUE NAME (ORG#) TUMOR TIME ROW 2xC_CONTINGENCY EXACT ASYMP ASYMP(CONTI
AND TUMOR NAME (TMR#) TYPES STRATA NO. -----TABLE----- PROB TOTIC NUIITY CORR)
=PR(STATISTIC.GE.OBSERVED

FA 84 1 0 1 0 2 1

FA 84	2	36	33	40	34	41
FA 85	1	0	0	1	0	0
FA 85	2	36	33	39	33	39
FA 86	1	2	0	0	0	0
FA 86	2	33	32	38	33	37
FA 90	1	1	0	2	0	0
FA 90	2	30	28	33	29	35
FA 92	1	1	0	0	0	0
FA 92	2	27	25	31	27	35
FA 93	1	0	0	1	1	0
FA 93	2	26	25	30	26	35
FA 95	1	0	1	0	0	0
FA 95	2	24	22	29	25	34
FA 96	1	0	0	0	1	1
FA 96	2	24	22	28	23	33
FA 97	1	0	0	0	1	1
FA 97	2	23	22	27	22	31
FA 98	1	0	0	1	0	0
FA 98	2	23	21	24	20	31
FA 99	1	1	2	0	1	0
FA 99	2	21	19	24	18	30
FA 100	1	0	0	2	1	0
FA 100	2	21	19	21	17	29
FA 101	1	0	0	0	1	0
FA 101	2	20	19	21	16	28
FA 103	1	0	2	1	0	0
FA 103	2	18	16	16	15	26

Spontaneous tumor pct: 68% in ctrl. - Total - 40 41 39 35 28

MAMMARY GLAND (13) IN 53-78 1 0 2 1 2 2 0.6806 0.6858 0.7138
ADENOCARCINOMA [M] (23) IN 53-78 2 14 10 7 11 8

IN 79-91	1	3	3	2	2	2
IN 79-91	2	12	13	11	12	9
IN 92-104	1	3	1	4	1	3
IN 92-104	2	9	12	12	13	10
IN 105-106	1	4	0	1	5	3
IN 105-106	2	9	12	11	6	18
FA 42	1	0	1	0	0	0
FA 42	2	58	58	57	59	59
FA 60	1	0	0	0	1	0
FA 60	2	56	56	55	56	57
FA 70	1	0	1	0	0	0
FA 70	2	50	48	50	51	54
FA 72	1	0	0	1	0	0
FA 72	2	48	47	48	48	53
FA 74	1	0	0	0	1	0
FA 74	2	46	47	47	45	51
FA 78	1	1	0	0	0	0
FA 78	2	44	45	48	43	49
FA 79	1	0	0	0	1	0
FA 79	2	43	44	46	42	48

BEST POSSIBLE

ORGAN/TISSUE NAME AND TUMOR NAME	(ORG#) (TMR#)	FA 81 TUMOR TIME TYPES STRATA	1 ROW NO.	0 0 0 0 1 2xC_CONTINGENCY -----TABLE-----	EXACT ASYMP ASYMP(CONTI PROB TOTIC NUIITY CORR) =PR(STATISTIC.GE.OBSERVED)
		FA 81	2	36 40 42 41 45	
		FA 82	1	0 1 0 0 0	
		FA 82	2	36 37 41 40 45	
		FA 85	1	0 1 0 0 0	
		FA 85	2	36 32 40 33 39	
		FA 87	1	0 0 0 0 1	
		FA 87	2	32 29 38 33 36	
		FA 88	1	0 0 1 0 0	
		FA 88	2	31 28 37 32 36	
		FA 89	1	0 0 1 1 0	
		FA 89	2	31 27 36 31 35	
		FA 91	1	0 1 0 0 0	
		FA 91	2	30 25 33 28 35	
		FA 93	1	1 0 0 0 0	
		FA 93	2	25 25 31 27 35	
		FA 95	1	0 0 1 0 0	
		FA 95	2	24 23 28 25 34	
		FA 96	1	0 0 1 0 0	
		FA 96	2	24 22 27 24 34	
		FA 97	1	0 0 0 1 0	
		FA 97	2	23 22 27 22 32	
		FA 98	1	0 0 0 1 0	
		FA 98	2	23 21 25 19 31	
		FA 99	1	0 0 0 0 1	
		FA 99	2	22 21 24 19 29	
		FA 101	1	1 0 1 0 0	
		FA 101	2	19 19 20 17 28	
		FA 103	1	1 0 0 0 0	
		FA 103	2	18 18 17 15 26	
Spontaneous tumor pct: 21%	in ctrl. - Total	-	-	14 11 14 16 13	
OVARY	(14) IN 105-106	1	0 0 0 0 2	0.0895 0.0162 0.0410	
GRANULOSA CELL TUMOR [B]	(24) IN 105-106	2	13 12 12 11 19		
Spontaneous tumor pct: <= 1%	in ctrl. - Total	-	-	0 0 0 0 2	
OVARY	(14) IN 79-91	1	0 1 0 0 0	1.0000 0.7917 0.9022	
SERTOLI CELL TUMOR [B]	(25) IN 79-91	2	15 18 15 16 13		
	IN 92-104	1	0 1 0 0 0		
	IN 92-104	2	15 12 19 16 14		
Spontaneous tumor pct: 2%	in ctrl. - Total	-	-	0 2 0 0 0	
PANCREAS	(15) IN 79-91	1	0 0 1 1 0	0.6984 0.7940 0.8672	
ISLET CELL ADENOMA [B]	(26) IN 79-91	2	15 19 14 15 13		
	IN 92-104	1	0 0 0 2 0		
	IN 92-104	2	15 13 19 14 14		
	IN 105-106	1	0 1 0 0 0		
	IN 105-106	2	13 11 12 11 21		
Spontaneous tumor pct: <= 1%	in ctrl. - Total	-	-	0 1 1 3 0	
PITUITARY	(16) IN 53-78	1	4 4 2 5 4	0.3614 0.3636 0.3866	
ADENOMA [B]	(29) IN 53-78	2	5 5 4 5 1		
	IN 79-91	1	5 8 6 7 7		
	IN 79-91	2	4 4 6 1 1		

BEST POSSIBLE

ORGAN/TISSUE NAME AND TUMOR NAME	(ORG#) (TMR#)	TUMOR TIME TYPES STRATA	ROW NO.	2x2 CONTINGENCY TABLE	EXACT PROB	ASYMP TOTIC	ASYMP(CONTI NUITY CORR)	=PR(STATISTIC.GE.OBSERVED)
IN 92-104	1			8 9 14 12 7				
IN 92-104	2			1 2 1 3 2				
IN 105-106	1			11 10 9 9 17				
IN 105-106	2			2 2 3 2 4				
FA 48	1			0 0 1 0 0				
FA 48	2			58 58 55 59 58				
FA 57	1			0 1 0 0 0				
FA 57	2			57 56 55 57 58				
FA 61	1			1 0 0 0 0				
FA 61	2			54 56 55 55 57				
FA 63	1			0 0 0 0 1				
FA 63	2			54 51 54 55 56				
FA 66	1			0 0 0 1 1				
FA 66	2			54 50 51 53 54				
FA 67	1			2 0 0 0 0				
FA 67	2			52 50 51 53 54				
FA 68	1			0 0 1 0 0				
FA 68	2			52 50 50 53 54				
FA 69	1			0 0 0 1 0				
FA 69	2			51 50 50 51 54				
FA 70	1			0 0 1 0 1				
FA 70	2			50 49 49 51 53				
FA 71	1			1 1 0 0 0				
FA 71	2			49 47 49 50 53				
FA 73	1			1 0 0 1 0				
FA 73	2			46 47 47 47 51				
FA 74	1			0 0 0 0 1				
FA 74	2			46 47 47 46 50				
FA 75	1			0 2 1 1 0				
FA 75	2			46 45 46 44 50				
FA 77	1			0 0 0 1 0				
FA 77	2			45 45 46 43 50				
FA 78	1			1 0 0 0 1				
FA 78	2			44 45 46 43 48				
FA 79	1			1 1 0 0 0				
FA 79	2			42 43 46 43 48				
FA 80	1			1 1 0 1 0				
FA 80	2			39 42 43 41 47				
FA 81	1			0 2 0 0 0				
FA 81	2			36 38 42 41 46				
FA 82	1			0 1 1 2 1				
FA 82	2			36 37 40 38 44				
FA 83	1			0 0 0 1 0				
FA 83	2			36 35 40 37 43				
FA 84	1			0 0 0 0 2				
FA 84	2			36 34 40 36 40				
FA 85	1			1 0 0 0 1				
FA 85	2			35 33 40 33 38				
FA 86	1			1 1 0 0 0				
FA 86	2			34 31 38 33 37				
FA 88	1			0 0 0 0 1				
FA 88	2			31 28 38 32 35				
FA 89	1			0 1 1 2 0				
FA 89	2			31 26 36 30 35				

BEST POSSIBLE

ORGAN/TISSUE NAME AND TUMOR NAME	(ORG#) (TMR#)	TUMOR TIME TYPES STRATA	ROW NO.	2xC -----TABLE-----	CONTINGENCY	EXACT PROB	ASYMP TOTIC	ASYMP(CONTI NUITY CORR)
		FA 90	1	0 0 0 1 0				
		FA 90	2	31 26 35 28 35				
		FA 91	1	2 0 1 1 0				
		FA 91	2	28 26 32 27 35				
		FA 92	1	1 0 0 0 0				
		FA 92	2	27 25 31 27 35				
		FA 93	1	0 2 0 0 0				
		FA 93	2	26 23 31 27 35				
		FA 94	1	1 0 0 0 1				
		FA 94	2	24 23 29 26 34				
		FA 96	1	1 0 0 0 0				
		FA 96	2	23 22 28 24 34				
		FA 97	1	0 0 2 1 0				
		FA 97	2	23 22 25 22 32				
		FA 98	1	1 0 0 0 1				
		FA 98	2	22 21 25 20 30				
		FA 99	1	0 0 1 0 0				
		FA 99	2	22 21 23 19 30				
		FA 100	1	1 0 0 0 0				
		FA 100	2	20 19 23 18 29				
		FA 102	1	0 0 1 0 2				
		FA 102	2	19 18 18 15 26				
		FA 103	1	1 0 0 0 0				
		FA 103	2	18 18 17 15 26				
		FA 104	1	0 0 0 0 1				
		FA 104	2	17 16 16 15 25				
Spontaneous tumor pct: 75% in ctrl. - Total			-	46 44 42 47 50				
PITUITARY ADENOCARCINOMA [M]	(16 (8	) IN 79-91	1	0 1 0 0 0		0.5955	0.4741	0.6018
		) IN 79-91	2	14 18 15 16 12				
		FA 62	1	0 1 0 0 0				
		FA 62	2	54 55 54 55 57				
		FA 82	1	0 0 0 0 1				
		FA 82	2	36 38 41 40 44				
		FA 87	1	1 0 0 0 0				
		FA 87	2	31 29 38 33 37				
Spontaneous tumor pct: 3% in ctrl. - Total			-	1 2 0 0 1				
SKELETAL MUSCLE FIBROSARCOMA [M]	(17 (31	) IN 92-104	1	0 1 0 0 0		1.0000	0.7219	0.8962
		) IN 92-104	2	15 12 19 16 14				
Spontaneous tumor pct: <= 1% in ctrl. - Total			-	0 1 0 0 0				
SKIN LIPOMA [B]	(18 (32	) IN 79-91	1	0 1 1 0 2		0.0011	0.0003	0.0005
		) IN 79-91	2	15 18 13 16 10				
		IN 92-104	1	0 1 1 1 3				
		IN 92-104	2	15 12 18 15 11				
		IN 105-106	1	1 0 0 0 3				
		IN 105-106	2	12 12 12 11 18				
		FA 80	1	0 0 0 0 1				
		FA 80	2	40 43 43 42 46				
		FA 85	1	0 0 1 0 0				
		FA 85	2	36 33 39 33 39				
Spontaneous tumor pct: 3% in ctrl. - Total			-	1 2 3 1 9				(P<0.005)

BEST POSSIBLE

ORGAN/TISSUE NAME AND TUMOR NAME	(ORG#) (TMR#)	TUMOR TIME TYPES STRATA	ROW NO.	2x2 CONTINGENCY -----TABLE-----	EXACT PROB	ASYMP TOTIC	ASYMP (CONTI NUITY CORR)	=PR (STATISTIC.GE.OBSERVED)
SKIN FIBROMA [B]	(18) (33)	) IN 92-104) IN 92-104 IN 105-106 IN 105-106	1 2 1 2	2 0 1 1 1 13 13 18 14 12 0 0 0 0 2 13 12 12 11 19	0.2474	0.2312	0.2882	
Spontaneous tumor pct: 4%		in ctrl. - Total	-	3 2 2 2 4				
SKIN FIBROSARCOMA [M]	(18) (34)	) IN 92-104) IN 92-104	1 2	0 0 1 0 0 15 13 18 16 14	0.6364	0.6990	0.8836	
Spontaneous tumor pct: <= 1%		in ctrl. - Total	-	0 0 1 0 0				
SKIN SQUAMOUS CELL PAPILLOMA [	(18) (37)	) IN 92-104) IN 92-104	1 2	0 0 1 0 0 15 13 18 16 14	0.6364	0.6990	0.8836	
Spontaneous tumor pct: <= 1%		in ctrl. - Total	-	0 0 1 0 0				
SKIN SQUAMOUS CELL CARCINOMA [	(18) (38)	) IN 105-108) IN 105-108 FA 94 FA 94	1 2 1 2	1 0 0 0 0 12 12 12 11 21 0 0 0 1 0 25 23 29 25 35	0.7008	0.7791	0.8807	
Spontaneous tumor pct: <= 1%		in ctrl. - Total	-	1 0 0 1 0				
SKIN KERATOACANTHOMA [B]	(18) (39)	) IN 79-91) IN 79-91 IN 105-106 IN 105-106	1 2 1 2	0 0 0 1 0 15 19 15 15 13 1 0 1 0 0 12 12 11 11 21	0.7443	0.8317	0.9045	
Spontaneous tumor pct: <= 1%		in ctrl. - Total	-	1 0 1 1 0				
SKIN OSTEOSARCOMA [M]	(18) (4)	) IN 92-104) IN 92-104	1 2	0 0 1 0 0 15 13 18 16 14	0.6364	0.6990	0.8836	
Spontaneous tumor pct: <= 1%		in ctrl. - Total	-	0 0 1 0 0				
SKIN SARCOMA, NOS [M], poorly	(18) (41)	) FA 36) FA 36	1 2	0 1 0 0 0 58 59 58 59 59	1.0000	0.7288	0.8953	
Spontaneous tumor pct: <= 1%		in ctrl. - Total	-	0 1 0 0 0				
SPINAL CORD ASTROCYTOMA [M]	(19) (5)	) IN 92-104) IN 92-104	1 2	0 1 0 0 0 15 12 19 16 14	1.0000	0.7219	0.8962	
Spontaneous tumor pct: <= 1%		in ctrl. - Total	-	0 1 0 0 0				
SPLEEN HEMANGIOMA [B]	(20) (21)	) FA 68) FA 68	1 2	0 0 0 1 0 52 50 51 52 54	0.4115	0.5941	0.8096	
Spontaneous tumor pct: <= 1%		in ctrl. - Total	-	0 0 0 1 0				
THYROID C-CELL ADENOMA [B]	(24) (47)	) IN 53-78) IN 53-78 IN 79-91 IN 79-91 IN 92-104	1 2 1 2 1	1 2 0 0 0 14 11 9 15 10 4 2 5 0 1 11 17 10 16 12 3 3 5 3 0	0.9993	0.9980	0.9986	

BEST POSSIBLE

ORGAN/TISSUE NAME AND TUMOR NAME	(ORG#) (TMR#)	TUMOR TIME TYPES STRATA	ROW NO.	2x2 CONTINGENCY -----TABLE-----	EXACT PROB	ASYMP TOTIC	ASYMP(CONTI NUITY CORR)
		IN 92-104	2	12 10 13 13 14			
		IN 105-106	1	4 1 1 5 1			
		IN 105-106	2	9 11 11 6 20			
Spontaneous tumor pct: 17%		in ctrl. - Total	-	12 8 11 8 2			
THYROID	(24	) IN 79-91	1	0 0 1 0 0	0.8398	0.8249	0.9076
C-CELL CARCINOMA [M]	(48	) IN 79-91	2	15 19 14 16 13			
		IN 92-104	1	1 0 1 0 0			
		IN 92-104	2	14 13 17 16 14			
Spontaneous tumor pct: <= 1%		in ctrl. - Total	-	1 0 2 0 0			
THYROID	(24	) IN 79-91	1	0 0 0 1 0	0.1652	0.2742	0.4000
FOLLICULAR CELL ADENOMA [	(49	) IN 79-91	2	15 19 15 15 13			
		IN 105-106	1	0 0 0 1 1			
		IN 105-106	2	13 12 12 10 20			
Spontaneous tumor pct: <= 1%		in ctrl. - Total	-	0 0 0 2 1			
URINARY BLADDER	(25	) IN 105-106	1	0 0 0 0 1	0.3043	0.0665	0.1738
TRANSITIONAL CELL CARCINO	(51	) IN 105-106	2	13 12 12 11 20			
Spontaneous tumor pct: <= 1%		in ctrl. - Total	-	0 0 0 0 1			
UTERUS	(26	) IN 53-78	1	0 0 1 0 0	0.5272	0.5698	0.6470
ENDOMETRIAL STROMAL POLYP	(52	) IN 53-78	2	15 13 8 15 10			
		IN 79-91	1	0 2 0 0 0			
		IN 79-91	2	15 17 15 16 13			
		IN 92-104	1	0 0 1 1 1			
		IN 92-104	2	15 13 18 15 13			
		IN 105-106	1	0 1 1 1 1			
		IN 105-106	2	13 11 11 10 20			
Spontaneous tumor pct: 3%		in ctrl. - Total	-	0 3 3 2 2			
UTERUS	(26	) IN 92-104	1	0 0 0 2 0	0.3735	0.6043	0.7711
SQUAMOUS CELL CARCINOMA [	(53	) IN 92-104	2	15 13 19 14 14			
Spontaneous tumor pct: <= 1%		in ctrl. - Total	-	0 0 0 2 0			
UTERUS	(26	) IN 105-106	1	0 0 1 0 0	0.6377	0.7556	0.8953
ADENOCARCINOMA [M]	(8	) IN 105-106	2	13 12 11 11 21			
Spontaneous tumor pct: <= 1%		in ctrl. - Total	-	0 0 1 0 0			
VAGINA	(27	) IN 92-104	1	0 0 1 0 0	0.6364	0.6990	0.8836
LEIOMYOMA [B]	(13	) IN 92-104	2	15 13 18 16 14			
Spontaneous tumor pct: <= 1%		in ctrl. - Total	-	0 0 1 0 0			
MULTIPLE ORGANS	(28	) IN 79-91	1	0 0 0 1 0	0.3659	0.3757	0.4663
HISTIOCYTIC SARCOMA [M]	(54	) IN 79-91	2	15 18 14 15 13			
		FA 72	1	0 0 0 0 1			
		FA 72	2	48 47 49 48 52			
		FA 81	1	0 0 1 0 0			
		FA 81	2	36 40 41 41 46			
		FA 86	1	0 1 0 0 0			
		FA 86	2	35 31 38 33 37			
		FA 96	1	0 0 0 0 1			
		FA 96	2	24 22 28 24 33			
		FA 101	1	0 1 0 0 0			
		FA 101	2	20 18 21 17 26			

BEST POSSIBLE

ORGAN/TISSUE NAME AND TUMOR NAME	(ORG#) (TMR#)	TUMOR TIME TYPES STRATA	ROW NO.	2xC_CONTINGENCY -----TABLE-----	EXACT PROB	ASYMP TOTIC	ASYMP(CONTI NUITY CORR)	=PR(STATISTIC.GE.OBSERVED)
Spontaneous tumor pct: 2%		in ctrl. - Total		-	0 2 2 1 2			
MULTIPLE ORGANS	(28	) IN 79-91	1	2 0 0 0 0	0.8354	0.7894	0.8488	
MALIGNANT LYMPHOMA [M]	(55	) IN 79-91	2	13 18 15 16 13				
		IN 92-104	1	0 0 1 0 0				
		IN 92-104	2	15 13 18 16 14				
		IN 105-106	1	1 0 0 0 0				
		IN 105-106	2	12 12 12 11 21				
		FA 8	1	0 0 1 0 0				
		FA 8	2	60 60 59 60 60				
		FA 24	1	1 0 0 0 0				
		FA 24	2	59 60 58 60 59				
		FA 77	1	0 0 0 0 1				
		FA 77	2	45 45 46 44 49				
		FA 87	1	0 1 0 0 0				
		FA 87	2	32 28 38 33 37				
Spontaneous tumor pct: 4%		in ctrl. - Total		-	4 1 2 0 1			
BRAIN	(3	) FA 88	1	0 1 0 0 0	1.0000	0.7374	0.8967	
ASTROCYTOMA [M]	(5	) FA 88	2	31 27 38 32 36				
Spontaneous tumor pct: <= 1%		in ctrl. - Total		-	0 1 0 0 0			
KIDNEY	(9	) FA 97	1	0 1 0 0 0	1.0000	0.7516	0.8991	
RENAL MESENCHYMAL TUMOR [	(15	) FA 97	2	23 21 27 23 32				
Spontaneous tumor pct: <= 1%		in ctrl. - Total		-	0 1 0 0 0			

- 12 - (End of File)

APPEARS THIS WAY ON ORIGINAL