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8EHQ-02-15211

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Attention: TSCA §8(e) Submittal

MR 215081

REFERENCE: TSCA §8(e) Submittal 8EHQ-02-15211 for

is submitting this supplemental information pursuant to Section 8(e) of the Toxic Substances Control Act (TSCA). This submission is an additional supplement to an earlier submission (8EHQ-02-15211)

This material has been tested under the name SP 7077.

A series of female pubertal and male Hershberger assays were conducted with SP 7077 and SP 7077 Variants.

In the female pubertal assays, female rats 22 days of age (N = 15/group) received 20 daily doses of SP 7077 or a Variant at three dose levels by oral gavage. Daily body weights were recorded. Beginning at 25 days of age, each female was observed daily for vaginal perforation. Vaginal smears for determination of estrus were performed daily upon the completion of vaginal perforation. At 42 days of age, all females were euthanized and weights of the following were recorded: liver, ovaries, wet and blotted uterus, pituitary gland, and adrenal glands.

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In the Hershberger assays, castrated male rats (N = 10-15/group) received ten daily doses of SP 7077 or a Variant at three dose levels by oral gavage. Males also received daily subcutaneous injections of testosterone propionate (0.4 mg/kg/day). Daily body weights were recorded. After ten daily doses, all males were euthanized, and weights of the following were recorded: liver, Cowper's gland, glans penis, levitor ani/bulbocavernosus muscles, seminal vesicles with coagulating glands, and ventral prostate.

An earlier supplemental submission provided unaudited draft results for the initial set of male and female assays, and stated that all positive findings would be reported when the research program was completed. This supplemental submission provides the final reports for each of the assays with positive findings.

The female assays produced the following effects in one or more studies: acceleration of vaginal perforation, decreased uterine blotted and/or wet weights, decreased ovary weight, increased adrenal weight, increased liver weight.

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The initial male assay submitted earlier appeared to result in a decrease in the weight of the seminal vesicles/coagulating glands. This was initially attributed by us to test material exposure, although the laboratory and study director considered it to be within the range of biological variation. However, subsequent Hershberger assays with SP 7077 and SP 7077 Variants did not affect the weights of male reproductive organs. In light of the results of the complete testing program, we now conclude that the original results were due to biological variation. Therefore, none of the male Hershberger assay final reports have been included in this supplemental submission.

We consider this letter to be "Confidential Business Information" (CBI); therefore, we are also enclosing a "sanitized" (non-CBI) version.

If you have any questions, please contact

Sincerely,

FINAL ABBREVIATED REPORT

STUDY TITLE

A FEMALE PUBERTAL ASSAY OF SP 7077 VARIANT (TS02044) ADMINISTERED ORALLY IN JUVENILE FEMALE RATS

STUDY NUMBER

[ ]

SANITIZED (Non-CBI)

STUDY DIRECTOR

[ ]

STUDY INITIATION DATE

January 31, 2003

STUDY COMPLETION DATE

September 24, 2003

PERFORMING LABORATORY

[ ]

SPONSOR STUDY NUMBER

03-004

SPONSOR

[ ]

COMPLIANCE STATEMENT

This study, designated WIL-187029, was conducted in compliance with the United States Environmental Protection Agency (EPA) Good Laboratory Practice Standards (40 CFR Part 160), October 16, 1989; the United States Environmental Protection Agency (EPA) Good Laboratory Practice Standards (40 CFR Part 792), September 18, 1989; the Organisation for Economic Cooperation and Development (OECD) Principles of Good Laboratory Practice [C (97) 186/Final], November 26, 1997; the standard operating procedures of WIL Research Laboratories, Inc., and the protocol as approved by the sponsor.

9/24/2003
Date

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1. SUMMARY

1.1. OBJECTIVE

The objective of the study was to evaluate the ability of the test article to induce effects on pubertal development in the intact juvenile female rat.

1.2. STUDY DESIGN

SP 7077 Variant (TS02044), in the vehicle, Mazola® corn oil, was administered orally by gavage once daily for 20 consecutive days to three groups of 15 Crl:CD®(SD)IGS BR immature female rats. Dosage levels were 50, 150 and 500 mg/kg/day, and the dose volume was 5 mL/kg. A concurrent control group received the vehicle on a comparable regimen. These dosage levels were determined from the results of previous studies and were provided by the sponsor representative after consultation with the

Dosing procedures were performed on February 18 through March 9, 2003, when the animals were 22 to 41 days of age. At the initiation of dose administration, body weights ranged from 40.2 to 61.8 g. The following table presents the study group assignment:

Group Number	Test Article	Dosage Level (mg/kg/day)	Dose Concentration (mg/mL)	Dose Volume (mL/kg)	Number of Females
1	Corn Oil	0	0	5	15
2	SP 7077 Variant	50	10	5	15
3	SP 7077 Variant	150	30	5	15
4	SP 7077 Variant	500	100	5	15

Preparation, storage and sampling of the control and test article formulations were conducted as follows. For the control group, the appropriate amount of the vehicle was dispensed into a storage container and stirred throughout use. The SP 7077 Variant (TS02044) dosing formulations were prepared by weighing an appropriate amount of test

article for each group into a tared, calibrated storage container. A stir bar and approximately 80% of the vehicle were added to the storage container, and the mixture was stirred until uniform. The formulations were heated in a water bath (46°C to 55°C). The appropriate volume of vehicle was added to bring the formulations to the calibration mark, and the preparations were stirred until uniform and throughout use. The SP 7077 Variant (TS02044) dosing formulations were prepared weekly, were divided into aliquots for daily dispensation and were stored at room temperature. Three sets of samples from the dosing formulations (including the control group) were collected prior to the initiation of dose administration. Two sets of samples for concentration verification were collected on the first and eighth day of each weekly preparation. Two sets of homogeneity/stability samples and four sets of concentration samples were shipped under ambient conditions to the sponsor for homogeneity, stability and concentration analyses; the remaining samples were stored under normal laboratory conditions at [ ] for possible future analysis.

Eight dams with 10 or 11 female pups each (84 pups total) were received from Charles River Laboratories, Inc., Portage, Michigan, on February 6, 2003. Pups were initially housed in plastic maternity cages (by litter with their own or a fostering dam) during the acclimation period (11 days) until randomization of the pups on postnatal day (PND) 21. Following randomization, the female pups were weaned and housed three per cage in plastic maternity cages. Environmental controls were set to maintain an average daily temperature of 71±5°C and an average daily relative humidity of 50±20%. Actual mean daily temperatures ranged from 70.6°-70.9°F (21.5°-21.6°C) and mean daily relative humidity ranged from 36.7%-39.4%. Light timers were calibrated to provide a 12-hour light (6 a.m. to 6 p.m.)/12-hour dark photoperiod. Air handling units were set to provide approximately 10 fresh air changes per hour. PMI Nutrition International, LLC, Certified Rodent LabDiet® 5002 and reverse-osmosis-purified water were offered *ad libitum*.

All animals were observed twice daily for appearance, behavior, mortality and moribundity. A detailed physical examination was performed at the time of

randomization. The rats were also observed daily and one hour following dose administration. Individual body weights were recorded daily. Each female pup was observed daily for vaginal patency beginning on PND 25 as described by Adams, *et al.*[1] Examination continued daily until vaginal patency was observed. Body weights were recorded on the day that vaginal patency was noted. Beginning on the day that vaginal patency was observed, vaginal lavages were performed daily, through the day of euthanasia, and the slides were examined to determine the stage of estrus. The mean estrous cycle length was calculated and reported for complete estrous cycles (*i.e.*, the total number of returns to metestrus [M] or diestrus [D] from estrus [E] or proestrus [P] until the day of euthanasia), beginning on the day vaginal patency was observed. Estrous cycle length was determined by counting the number of days from the first M or D in a cycle to the first M or D in a subsequent cycle. In addition, the mean day of onset of the first estrus was calculated using the first day each animal was observed to be in estrus. All animals were euthanized on PND 42 by carbon dioxide inhalation. The uterus (wet and blotted), ovaries, liver, pituitary gland and adrenal glands were weighed and retained for possible microscopic examination. Luminal fluid weight was calculated by subtracting the blotted uterus weight from the wet uterus weight. A gross necropsy was not performed.

Statistical tests were performed using appropriate computing devices or programs. Analyses were conducted using two-tailed tests for minimum significance levels of 1% and 5%, comparing each test article-treated group to the control group. Each mean was presented with the standard deviation (S.D.) and the number of animals (N) used to calculate the mean. Mean body weights, body weight changes, days of acquisition of vaginal patency, estrous cycle lengths, age at the first occurrence of estrus, luminal fluid weights and absolute and relative organ weights were subjected to a parametric one-way analysis of variance (ANOVA)[2] to determine intergroup differences. If the ANOVA revealed statistically significant ($p<0.05$) intergroup variance, Dunnett's test[3] was used to compare the test article-treated groups to the control group.

1.3. RESULTS

Two and one females in the 150 and 500 mg/kg/day groups, respectively, were found dead at 35 days of age (following 13-14 doses). Two females in the 150 mg/kg/day group were found dead at 39 days of age (following 18 doses). No test article-related clinical observations or changes in mean body weights were observed for these females prior to death, no test article-related internal findings were observed and no dose-related trend was apparent (relative to the number of animals per group that died). Therefore, the relationship to the test article was inconclusive. All other animals survived to the scheduled euthanasia. No clinical findings were observed at any dose level at the daily observations. Salivation was noted for the majority of the animals in the 500 mg/kg/day group one hour following dose administration during study days 13-19 (PND 35-41).

No test article-related changes in mean body weights and body weight gains were noted at any dose level. The only statistically significant ($p<0.05$) differences from the control group values were a slight increase in mean body weight gain in the 500 mg/kg/day group females during PND 23-24 and a slight reduction in mean body weight gain in the same group during PND 26-27. Overall mean body weight gain (PND 22-42) in this group was similar to that in the control group.

Vaginal patency was achieved earlier in the 500 mg/kg/day group than in the control group. The difference was statistically significant ($p<0.01$). Mean days of acquisition were 34.3, 35.1, 33.5 and 32.2 days in the control, 50, 150 and 500 mg/kg/day groups, respectively. Since the females were younger on the day that vaginal patency was observed, mean body weight on the day of acquisition in the 500 mg/kg/day group was slightly lower (10%, statistically significant at $p<0.05$) than the control group value. These differences were attributed to the test article. No test article-related changes in the mean day of acquisition of vaginal patency or mean body weight on the day of acquisition were observed in the 50 and 150 mg/kg/day groups. Differences from the control group were slight and not statistically significant. No statistically significant differences in mean estrous cycle lengths were observed in the test article-treated groups

compared to the control group. Estrous cycle lengths in females of this age are highly variable, and combined with the limited number of days of evaluation, evidence of a test article-related effect was inconclusive. The mean age of first estrus was slightly earlier (PND 34.4) in the 500 mg/kg/day group than the control group value (PND 35.2); the early onset of the first estrus in this group was attributed to the test article. Vaginal patency and the onset of estrus are regulated by rising levels of estradiol.

Test article-related reductions in mean absolute and relative (to final body weight) uterus (wet and blotted) and ovary weights were observed in the 500 mg/kg/day group; the differences from the control group for the blotted uterus and ovary weights were statistically significant ($p<0.01$). Twelve of the 14 females in this group were in diestrus at the time of necropsy, which contributed somewhat to the lower weights in this group, compared to six females in the control group that were in estrus or proestrus at the time of necropsy. Mean luminal fluid weight in the 500 mg/kg/day group was similar to that in the control group. Mean absolute and relative liver weights in this group were increased (statistically significant at $p<0.01$) compared to the control group values. These increases were considered test article-related. Mean adrenal gland and pituitary weights in the 500 mg/kg/day group were similar to those in the control group. Mean absolute and relative ovary weights in the 150 mg/kg/day group were reduced compared to the control group values; the difference for the mean relative weight was statistically significant ($p<0.05$). This reduction was attributed to the test article. No other test article-related or statistically significant differences in organ weights were observed in the 150 mg/kg/day group. No test article-related differences in mean organ weights were observed in the 50 mg/kg/day group; differences from the control group were slight and not statistically significant.

1.4. CONCLUSIONS

Based on the results of this study, the test article, SP 7077 Variant (TS02044), administered orally to juvenile female rats exhibited estrogenic effects in the 500 mg/kg/day group as evidenced by early acquisition of vaginal patency and slightly

earlier onset of the first day of estrus. The reductions in mean absolute and relative ovary weights in the 150 and 500 mg/kg/day groups were attributed to estradiol modulation. The reductions in mean absolute and relative (to final body weight) uterus (wet and blotted) weights in the 500 mg/kg/day group were not associated with estrogen modulation. No test article-related estrogenic effects were observed at a dosage level of 50 mg/kg/day.

2. KEY STUDY PERSONNEL AND REPORT SUBMISSION

Study Supervisors:

3. Quality Assurance Unit Statement

3.1. Phases Inspected

Date(s) of Inspection(s)	Phase Inspected	Date(s) Findings Reported to Study Director	Date(s) Findings Reported to Management
2/21/03	Vaginal Perforation	2/24/03	3/31/03
3/28-29/03, 4/1/03	Study Records (1-1)	4/1/03	5/30/03
3/29/03, 4/1/03	Study Records (Rx-1)	4/1/03	5/30/03
3/29/03, 4/1/03	Study Records (N-1)	4/1/03	5/30/03
3/31/03, 4/1-2/03	Draft Report	4/2/03	5/30/03

This study was inspected in accordance with the U.S. EPA Good Laboratory Practice Regulations (40 CFR Parts 160 and 792), the OECD Principles of Good Laboratory Practice, the standard operating procedures of [ ] and the sponsor's protocol and protocol amendments with the following exceptions. The data located in Appendices A and B (Certificate of Analysis and Analytical Chemistry Report) were the responsibility of the sponsor. Quality Assurance findings, derived from the inspections during the conduct of the study and from the inspections of the raw data and draft report, are documented and have been reported to the study director. A status report is submitted to management monthly.

This report accurately reflects the data generated during the study. The methods and procedures used in the study were those specified in the protocol, its amendments and the standard operating procedures of [ ]

The raw data, the retention sample(s), if applicable, and the final report will be stored in the Archives at [ ] or another location specified by the sponsor.

3.2. APPROVAL

This study was inspected according to the criteria discussed in Section 3.1.

Report Audited By:

9/24/03
Date

Report Released By:

9/24/03
Date

4. REFERENCES

1. Adams, J.; Buelke-Sam, J.; Kimmel, C.A.; Nelson, C.J.; Reiter, L.W.; Sobotka, T.J.; Tilson, H.A.; Nelson, B.K. Collaborative behavioral teratology study: protocol design and testing procedure. *Neurobehavioral Toxicology and Teratology* **1985,** *7,* 579-586.

2. Snedecor, G.W.; Cochran, W.G. One Way Classifications; Analysis of Variance. In *Statistical Methods*, 7th ed.; The Iowa State University Press: Ames, IA, **1980**; pp 215-237.

3. Dunnett, C.W. New tables for multiple comparisons with a control. *Biometrics* **1964,** *20,* 482-491.

5. DEVIATIONS FROM THE PROTOCOL

This study was conducted in accordance with the protocol and protocol amendments, except for the following.

- Female pups were to be nine days old at receipt; however, the female pups were 10 days old when received.
- At the time of randomization, body weights were to range from 30 g to 50 g, and all animals were to be within ±5 g of the mean. Due to the number of animals that were outside the expected body weight range, animals selected for the study weighed between 30 g and 60 g; not all animals assigned were within ±5 g of the mean. The animal weight range was fairly evenly distributed across groups.
- Body weights were to be recorded to 0.1 g. Pretest and final body weights were recorded to 0.1 g; however, the body weight program in which these data were recorded does not store or print rat weights to 0.1 g. Therefore, the final body weights are presented to the nearest gram.
- Samples of the dosing formulations were to be collected on the day of and the seventh day following each weekly preparation. Samples were actually collected on the day of and the eighth day following each preparation.
- Detailed physical examinations were performed daily prior to dose administration. Observations were not recorded at the time of dosing.
- Vaginal smears were to be performed daily beginning on the day that vaginal patency was observed. On February 26, 2003 (PND 30), female nos. 20378-01 and 20381-03 obtained vaginal patency. On the following day (PND 31), vaginal lavages were not performed on these females.
- Liver weights were to be recorded to the nearest 0.1 mg; however, liver weights were recorded to the nearest 0.01 g.

These deviations did not negatively impact the quality or integrity of the data nor the outcome of the study.

TABLES 1 - 19

TABLE 1
PUBERTAL ASSAY OF SP 7077 VARIANT (TS02044) IN JUV. FEMALE RATS
SUMMARY OF SURVIVAL AND DISPOSITION

FEMALES

GROUP :	1				2				3				4			
DAY	LIVE	FD	EE	SE	LIVE	FD	EE	SE	LIVE	FD	EE	SE	LIVE	FD	EE	SE
0	15	0	0	0	15	0	0	0	15	0	0	0	15	0	0	0
1	15	0	0	0	15	0	0	0	15	0	0	0	15	0	0	0
2	15	0	0	0	15	0	0	0	15	0	0	0	15	0	0	0
3	15	0	0	0	15	0	0	0	15	0	0	0	15	0	0	0
4	15	0	0	0	15	0	0	0	15	0	0	0	15	0	0	0
5	15	0	0	0	15	0	0	0	15	0	0	0	15	0	0	0
6	15	0	0	0	15	0	0	0	15	0	0	0	15	0	0	0
7	15	0	0	0	15	0	0	0	15	0	0	0	15	0	0	0
8	15	0	0	0	15	0	0	0	15	0	0	0	15	0	0	0
9	15	0	0	0	15	0	0	0	15	0	0	0	15	0	0	0
10	15	0	0	0	15	0	0	0	15	0	0	0	15	0	0	0
11	15	0	0	0	15	0	0	0	15	0	0	0	15	0	0	0
12	15	0	0	0	15	0	0	0	15	0	0	0	15	0	0	0
13	15	0	0	0	15	0	0	0	13	2	0	0	14	1	0	0
14	15	0	0	0	15	0	0	0	13	0	0	0	14	0	0	0
15	15	0	0	0	15	0	0	0	13	0	0	0	14	0	0	0
16	15	0	0	0	15	0	0	0	13	0	0	0	14	0	0	0
17	15	0	0	0	15	0	0	0	11	2	0	0	14	0	0	0
18	15	0	0	0	15	0	0	0	11	0	0	0	14	0	0	0
19	15	0	0	0	15	0	0	0	11	0	0	0	14	0	0	0
20	0	0	0	15	0	0	0	15	0	0	0	11	0	0	0	14

DAY = DAY OF STUDY FD = FOUND DEAD EE = EUTHANIZED IN EXTREMIS SE = SCHEDULED EUTHANASIA

1- 0 MG/KG/DAY 2- 50 MG/KG/DAY 3- 150 MG/KG/DAY 4- 500 MG/KG/DAY

PSURVv4.02
03/19/2003

TABLE 2 (DAILY OBSERVATIONS)
PUBERTAL ASSAY OF SP 7077 VARIANT (TS02044) IN JUV. FEMALE RATS
SUMMARY OF CLINICAL FINDINGS: TOTAL OCCURRENCE/NO. OF ANIMALS

----- F E M A L E -----

TABLE RANGE:	02-18-03 TO 03-10-03			
GROUP:	1	2	3	4
NORMAL				
-NO SIGNIFICANT CLINICAL OBSERVATIONS	315/15	315/15	294/15	308/15
DISPOSITION				
-FOUND DEAD	0/ 0	0/ 0	4/ 4	1/ 1
-SCHEDULED EUTHANASIA	15/15	15/15	11/11	14/14

1- 0 MG/KG/DAY 2- 50 MG/KG/DAY 3- 150 MG/KG/DAY 4- 500 MG/KG/DAY

PCSUv4.04
03/19/2003

TABLE 3 (1-HOUR POST-DOSING)
PUBERTAL ASSAY OF SP 7077 VARIANT (TS02044) IN JUV. FEMALE RATS
SUMMARY OF CLINICAL FINDINGS: TOTAL OCCURRENCE/NO. OF ANIMALS

----- F E M A L E -----

TABLE RANGE:	02-18-03 TO 03-09-03			
GROUP:	1	2	3	4
ORAL/DENTAL -SALIVATION	0/ 0	0/ 0	0/ 0	45/13

1- 0 MG/KG/DAY 2- 50 MG/KG/DAY 3- 150 MG/KG/DAY 4- 500 MG/KG/DAY

PCSUv4.04
03/19/2003
R:03/21/2003

TABLE 4
PUBERTAL ASSAY OF SP 7077 VARIANT (TS02044) IN JUV. FEMALE RATS
SUMMARY OF BODY WEIGHTS [G]

FEMALES

GROUP :		1	2	3	4
DAY 22	MEAN	53.2	53.2	53.3	53.4
	S.D.	4.97	5.41	5.01	5.04
	N	15	15	15	15
DAY 23	MEAN	57.0	56.6	57.4	56.3
	S.D.	5.47	5.88	5.59	5.27
	N	15	15	15	15
DAY 24	MEAN	60.9	61.2	61.3	61.2
	S.D.	5.38	6.10	5.93	5.32
	N	15	15	15	15
DAY 25	MEAN	65.8	65.7	65.5	66.2
	S.D.	5.56	6.09	6.41	5.49
	N	15	15	15	15
DAY 26	MEAN	70.2	70.7	70.0	71.2
	S.D.	5.57	6.74	6.45	5.78
	N	15	15	15	15
DAY 27	MEAN	74.9	75.5	74.2	74.9
	S.D.	5.52	6.98	6.35	5.77
	N	15	15	15	15
DAY 28	MEAN	78.7	80.0	78.3	79.6
	S.D.	5.66	7.28	6.54	5.99
	N	15	15	15	15
DAY 29	MEAN	83.4	84.8	83.4	84.9
	S.D.	5.85	8.09	7.42	6.33
	N	15	15	15	15

1- 0 MG/KG/DAY 2- 50 MG/KG/DAY 3- 150 MG/KG/DAY 4- 500 MG/KG/DAY

None significantly different from control group

TABLE 4
PUBERTAL ASSAY OF SP 7077 VARIANT (TS02044) IN JUV. FEMALE RATS
SUMMARY OF BODY WEIGHTS [G]

FEMALES

GROUP :		1	2	3	4
DAY 30	MEAN	89.8	91.5	89.6	91.3
	S.D.	6.40	8.71	7.44	6.78
	N	15	15	15	15
DAY 31	MEAN	95.2	97.0	94.5	96.8
	S.D.	6.46	8.86	7.75	6.81
	N	15	15	15	15
DAY 32	MEAN	101.7	103.8	101.0	102.4
	S.D.	6.43	9.35	8.66	7.31
	N	15	15	15	15
DAY 33	MEAN	108.3	111.4	107.6	109.7
	S.D.	6.50	9.88	7.52	7.90
	N	15	15	15	15
DAY 34	MEAN	113.9	118.4	113.7	115.2
	S.D.	6.41	10.73	8.20	8.04
	N	15	15	15	15
DAY 35	MEAN	119.2	122.8	118.1	119.7
	S.D.	6.51	11.17	9.07	8.10
	N	15	15	13	15
DAY 36	MEAN	124.8	128.7	125.0	126.7
	S.D.	7.28	11.76	9.62	8.34
	N	15	15	13	14
DAY 37	MEAN	129.4	134.7	130.2	131.2
	S.D.	7.19	13.07	9.74	8.76
	N	15	15	13	14

1- 0 MG/KG/DAY 2- 50 MG/KG/DAY 3- 150 MG/KG/DAY 4- 500 MG/KG/DAY

None significantly different from control group

TABLE 4
PUBERTAL ASSAY OF SP 7077 VARIANT (TS02044) IN JUV. FEMALE RATS
SUMMARY OF BODY WEIGHTS [G]

FEMALES

GROUP :		1	2	3	4
DAY 38	MEAN	135.3	139.9	135.9	135.8
	S.D.	7.26	13.65	10.48	9.34
	N	15	15	13	14
DAY 39	MEAN	140.9	145.9	140.9	140.8
	S.D.	8.28	14.15	11.10	9.65
	N	15	15	13	14
DAY 40	MEAN	145.6	150.6	146.7	144.6
	S.D.	8.26	13.69	12.87	10.16
	N	15	15	11	14
DAY 41	MEAN	150.4	155.1	152.9	149.9
	S.D.	8.91	14.73	13.19	9.83
	N	15	15	11	14
DAY 42	MEAN	152.1	158.5	156.5	152.4
	S.D.	9.01	14.75	15.50	9.09
	N	15	15	11	14

1- 0 MG/KG/DAY 2- 50 MG/KG/DAY 3- 150 MG/KG/DAY 4- 500 MG/KG/DAY

None significantly different from control group

PJTBWSUv5.00
03/19/2003

TABLE 5
PUBERTAL ASSAY OF SP 7077 VARIANT (TS02044) IN JUV. FEMALE RATS
SUMMARY OF BODY WEIGHT CHANGES [G]

FEMALES

GROUP :		1	2	3	4
DAY 22- 23	MEAN	3.8	3.5	4.1	2.9
	S.D.	1.26	1.41	1.31	1.48
	N	15	15	15	15
DAY 23- 24	MEAN	3.9	4.6	3.9	4.8*
	S.D.	1.11	1.06	0.82	1.05
	N	15	15	15	15
DAY 24- 25	MEAN	4.9	4.5	4.2	5.0
	S.D.	1.96	1.20	1.07	1.24
	N	15	15	15	15
DAY 25- 26	MEAN	4.4	5.0	4.5	5.0
	S.D.	1.13	1.17	0.79	0.98
	N	15	15	15	15
DAY 26- 27	MEAN	4.6	4.8	4.2	3.8*
	S.D.	0.90	1.29	0.73	0.85
	N	15	15	15	15
DAY 27- 28	MEAN	3.8	4.4	4.1	4.7
	S.D.	0.78	0.99	1.61	1.25
	N	15	15	15	15
DAY 28- 29	MEAN	4.7	4.8	5.1	5.2
	S.D.	0.82	0.94	1.81	0.89
	N	15	15	15	15
DAY 29- 30	MEAN	6.4	6.7	6.2	6.5
	S.D.	1.18	1.05	1.19	1.41
	N	15	15	15	15

1- 0 MG/KG/DAY 2- 50 MG/KG/DAY 3- 150 MG/KG/DAY 4- 500 MG/KG/DAY

* = Significantly different from the control group at 0.05 using Dunnett's test
MEAN DIFFERENCES CALCULATED FROM INDIVIDUAL DIFFERENCES

TABLE 5
PUBERTAL ASSAY OF SP 7077 VARIANT (TS02044) IN JUV. FEMALE RATS
SUMMARY OF BODY WEIGHT CHANGES [G]

FEMALES

GROUP :		1	2	3	4
DAY 30- 31	MEAN	5.4	5.5	4.9	5.4
	S.D.	0.94	1.27	1.19	1.13
	N	15	15	15	15
DAY 31- 32	MEAN	6.5	6.9	6.5	5.6
	S.D.	1.27	1.90	1.59	1.47
	N	15	15	15	15
DAY 32- 33	MEAN	6.6	7.5	6.6	7.3
	S.D.	1.81	1.21	2.43	1.20
	N	15	15	15	15
DAY 33- 34	MEAN	5.6	7.0	6.1	5.5
	S.D.	1.75	1.95	1.81	1.42
	N	15	15	15	15
DAY 34- 35	MEAN	5.4	4.4	4.8	4.5
	S.D.	1.35	1.74	1.72	1.74
	N	15	15	13	15
DAY 35- 36	MEAN	5.5	5.9	6.9	6.7
	S.D.	1.86	2.18	1.19	1.59
	N	15	15	13	14
DAY 36- 37	MEAN	4.6	6.0	5.2	4.4
	S.D.	1.28	2.31	1.77	1.58
	N	15	15	13	14
DAY 37- 38	MEAN	5.8	5.2	5.7	4.7
	S.D.	2.23	1.45	1.87	1.52
	N	15	15	13	14

1- 0 MG/KG/DAY 2- 50 MG/KG/DAY 3- 150 MG/KG/DAY 4- 500 MG/KG/DAY

None significantly different from control group
MEAN DIFFERENCES CALCULATED FROM INDIVIDUAL DIFFERENCES

TABLE 5
PUBERTAL ASSAY OF SP 7077 VARIANT (TS02044) IN JUV. FEMALE RATS
SUMMARY OF BODY WEIGHT CHANGES [G]

FEMALES

GROUP :		1	2	3	4
DAY 38- 39	MEAN	5.6	6.0	5.0	5.0
	S.D.	2.37	2.03	2.67	1.88
	N	15	15	13	14
DAY 39- 40	MEAN	4.7	4.7	5.4	3.7
	S.D.	2.59	2.23	2.81	1.95
	N	15	15	11	14
DAY 40- 41	MEAN	4.8	4.5	6.2	5.4
	S.D.	2.03	3.47	2.53	2.97
	N	15	15	11	14
DAY 41- 42	MEAN	1.7	3.4	3.7	2.5
	S.D.	3.77	3.29	3.18	2.08
	N	15	15	11	14
DAY 22- 42	MEAN	98.9	105.4	103.5	99.2
	S.D.	9.32	10.44	11.09	6.98
	N	15	15	11	14

1- 0 MG/KG/DAY 2- 50 MG/KG/DAY 3- 150 MG/KG/DAY 4- 500 MG/KG/DAY

None significantly different from control group
MEAN DIFFERENCES CALCULATED FROM INDIVIDUAL DIFFERENCES

PJTBWSUv5.00
03/19/2003

TABLE 6
PUBERTAL ASSAY OF SP 7077 VARIANT (TS02044) IN JUV. FEMALE RATS
SUMMARY OF ANIMAL DEVELOPMENTAL PARAMETERS - VAGINAL PATENCY

FEMALES

GROUP:	1	2	3	4
VAGINAL PATENCY (PND)				
MEAN	34.3	35.1	33.5	32.2**
S.D.	1.67	1.25	1.25	1.42
N	15	15	15	15
BODY WEIGHT				
MEAN	115.4	123.8	110.3	103.9*
S.D.	11.11	13.85	10.09	9.69
N	15	15	15	15

1- 0 MG/KG/DAY 2- 50 MG/KG/DAY 3- 150 MG/KG/DAY 4- 500 MG/KG/DAY

PND = POSTNATAL DAY
* = Significantly different from the control group at 0.05 using Dunnett's test
** = Significantly different from the control group at 0.01 using Dunnett's test

PJTBBv1.03
03/19/2003
R:04/23/2003

TABLE 7
PUBERTAL ASSAY OF SP 7077 VARIANT (TS02044) IN JUV. FEMALE RATS
SUMMARY OF ESTROUS CYCLE DATA

---- FEMALES ----

GROUP:	0 MG/KG/DAY	50 MG/KG/DAY	150 MG/KG/DAY	500 MG/KG/DAY
ESTROUS CYCLE LENGTH (DAYS)				
MEAN	5.4	5.2	5.5	6.1
S.D.	0.74	0.41	0.58	0.88
N	8	6	4	10
MEAN AGE AT FIRST OCCURRENCE OF ESTRUS				
MEAN	35.2	36.5	35.3	34.4
S.D.	2.15	2.03	2.49	3.00
N	14	15	12	14

None significantly different from control group

PCYCv5.06
03/19/2003
R:04/02/2003

TABLE 8 (UNSCHEDULED DEATHS)
PUBERTAL ASSAY OF SP 7077 VARIANT (TS02044) IN JUV. FEMALE RATS
SUMMARY OF MACROSCOPIC FINDINGS

FOUND DEAD OR EUTHANIZED MORIBUND OR IN EXTREMIS

	----- FEMALE -----			
GROUP	1	2	3	4
NUMBER OF ANIMALS IN DOSE GROUP	15	15	15	15
NUMBER OF ANIMALS EXAMINED	0	0	4	1
LUNGS				
-AREA(S), DARK RED	0	0	0	1
-DISCOLORATION, DARK RED	0	0	1	0
NO SIGNIFICANT CHANGES OBSERVED - ALL EXAMINED TISSUES	0	0	3	0

1- 0 MG/KG/DAY 2- 50 MG/KG/DAY 3- 150 MG/KG/DAY 4- 500 MG/KG/DAY

PGRSIv4.02
03/19/2003

TABLE 9
PUBERTAL ASSAY OF SP 7077 VARIANT (TS02044) IN JUV. FEMALE RATS
SUMMARY OF ORGAN WEIGHTS [G]

GROUP:	0 MG/KG/DAY	50 MG/KG/DAY	150 MG/KG/DAY	500 MG/KG/DAY
	----- F E M A L E -----			
UTERUS- WET (G)				
MEAN	0.4400	0.3484	0.4367	0.2926
S.D.	0.17293	0.16614	0.24296	0.15601
N	15	15	11	14
UTERUS- BLOT. (G)				
MEAN	0.3610	0.2982	0.3302	0.2516**
S.D.	0.07963	0.09454	0.09225	0.06788
N	15	15	11	14
LUMINAL FLUID (G)-A				
MEAN	0.0863	0.0501	0.1065	0.0411
S.D.	0.11248	0.08227	0.16985	0.09557
N	15	15	11	14
LIVER (G)				
MEAN	7.16	7.93	7.95	8.49**
S.D.	0.611	1.177	1.545	1.065
N	15	15	11	14
OVARIES (G)				
MEAN	0.0858	0.0858	0.0747	0.0674**
S.D.	0.01382	0.01360	0.01366	0.01349
N	15	15	11	14

** = Significantly different from the control group at 0.01 using Dunnett's test
A - LUMINAL FLUID = WET UTERUS WEIGHT MINUS BLOTTED UTERUS WEIGHT

TABLE 9
PUBERTAL ASSAY OF SP 7077 VARIANT (TS02044) IN JUV. FEMALE RATS
SUMMARY OF ORGAN WEIGHTS [G]

GROUP:	0 MG/KG/DAY	50 MG/KG/DAY	150 MG/KG/DAY	500 MG/KG/DAY
	----- F E M A L E -----			
ADRENAL GLANDS (G)				
MEAN	0.0395	0.0412	0.0423	0.0431
S.D.	0.00577	0.00578	0.00828	0.00630
N	15	15	11	14
PITUITARY (G)				
MEAN	0.0082	0.0084	0.0085	0.0075
S.D.	0.00113	0.00112	0.00091	0.00105
N	15	15	11	14

None significantly different from control group

POFBSTv5.02
03/19/2003
R:04/23/2003

TABLE 10
PUBERTAL ASSAY OF SP 7077 VARIANT (TS02044) IN JUV. FEMALE RATS
SUMMARY OF ORGAN WTS. RELATIVE TO FINAL BODY WTS. [G/100 G]

	----- F E M A L E -----			
GROUP:	0 MG/KG/DAY	50 MG/KG/DAY	150 MG/KG/DAY	500 MG/KG/DAY
FINAL BODY WT (G)				
MEAN	152.	159.	157.	152.
S.D.	8.9	14.9	15.5	9.1
N	15	15	11	14
UTERUS- WET				
MEAN	0.288	0.219	0.281	0.192
S.D.	0.1047	0.0979	0.1556	0.0969
N	15	15	11	14
UTERUS- BLOT.				
MEAN	0.237	0.189*	0.213	0.165**
S.D.	0.0487	0.0603	0.0635	0.0412
N	15	15	11	14
LIVER				
MEAN	4.708	4.984	5.049	5.588**
S.D.	0.3035	0.4259	0.5810	0.5474
N	15	15	11	14
OVARIES				
MEAN	0.057	0.054	0.048*	0.044**
S.D.	0.0112	0.0081	0.0082	0.0084
N	15	15	11	14

* = Significantly different from the control group at 0.05 using Dunnett's test
** = Significantly different from the control group at 0.01 using Dunnett's test

TABLE 10
PUBERTAL ASSAY OF SP 7077 VARIANT (TS02044) IN JUV. FEMALE RATS
SUMMARY OF ORGAN WTS. RELATIVE TO FINAL BODY WTS. [G/100 G]

GROUP:	0 MG/KG/DAY	50 MG/KG/DAY	150 MG/KG/DAY	500 MG/KG/DAY
	----- F E M A L E -----			
ADRENAL GLANDS				
MEAN	0.026	0.026	0.027	0.028
S.D.	0.0039	0.0029	0.0049	0.0037
N	15	15	11	14
PITUITARY				
MEAN	0.005	0.005	0.005	0.005
S.D.	0.0008	0.0008	0.0005	0.0007
N	15	15	11	14

None significantly different from control group

POFBSTv5.02
03/19/2003

TABLE 11 (DAILY OBSERVATIONS)
PUBERTAL ASSAY OF SP 7077 VARIANT (TS02044) IN JUV. FEMALE RATS
INDIVIDUAL CLINICAL OBSERVATIONS [POSITIVE FINDINGS ONLY]

TABLE RANGE: 02-18-03 TO 03-10-03

ANIMAL	SEX	GROUP	CATEGORY	DATE	TIME	GRADE	OBSERVATIONS
20377-06	F	0 MG/KG/DAY	DISPOSITION	03-10-03	8:29	P	SCHEDULED EUTHANASIA
20378-03	F	0 MG/KG/DAY	DISPOSITION	03-10-03	8:29	P	SCHEDULED EUTHANASIA
20379-01	F	0 MG/KG/DAY	DISPOSITION	03-10-03	8:29	P	SCHEDULED EUTHANASIA
20380-09	F	0 MG/KG/DAY	DISPOSITION	03-10-03	8:29	P	SCHEDULED EUTHANASIA
20380-10	F	0 MG/KG/DAY	DISPOSITION	03-10-03	8:30	P	SCHEDULED EUTHANASIA
20381-01	F	0 MG/KG/DAY	DISPOSITION	03-10-03	8:30	P	SCHEDULED EUTHANASIA
20381-04	F	0 MG/KG/DAY	DISPOSITION	03-10-03	8:30	P	SCHEDULED EUTHANASIA
20381-08	F	0 MG/KG/DAY	DISPOSITION	03-10-03	8:30	P	SCHEDULED EUTHANASIA
20381-09	F	0 MG/KG/DAY	DISPOSITION	03-10-03	8:30	P	SCHEDULED EUTHANASIA
20383-05	F	0 MG/KG/DAY	DISPOSITION	03-10-03	8:30	P	SCHEDULED EUTHANASIA
20383-06	F	0 MG/KG/DAY	DISPOSITION	03-10-03	8:30	P	SCHEDULED EUTHANASIA
20384-02	F	0 MG/KG/DAY	DISPOSITION	03-10-03	8:30	P	SCHEDULED EUTHANASIA
20384-04	F	0 MG/KG/DAY	DISPOSITION	03-10-03	8:30	P	SCHEDULED EUTHANASIA
20384-07	F	0 MG/KG/DAY	DISPOSITION	03-10-03	8:30	P	SCHEDULED EUTHANASIA
20384-08	F	0 MG/KG/DAY	DISPOSITION	03-10-03	8:30	P	SCHEDULED EUTHANASIA
20377-05	F	50 MG/KG/DAY	DISPOSITION	03-10-03	8:30	P	SCHEDULED EUTHANASIA
20378-04	F	50 MG/KG/DAY	DISPOSITION	03-10-03	8:31	P	SCHEDULED EUTHANASIA
20378-09	F	50 MG/KG/DAY	DISPOSITION	03-10-03	8:31	P	SCHEDULED EUTHANASIA
20378-11	F	50 MG/KG/DAY	DISPOSITION	03-10-03	8:31	P	SCHEDULED EUTHANASIA
20379-03	F	50 MG/KG/DAY	DISPOSITION	03-10-03	8:31	P	SCHEDULED EUTHANASIA
20379-09	F	50 MG/KG/DAY	DISPOSITION	03-10-03	8:31	P	SCHEDULED EUTHANASIA
20379-11	F	50 MG/KG/DAY	DISPOSITION	03-10-03	8:31	P	SCHEDULED EUTHANASIA
20380-02	F	50 MG/KG/DAY	DISPOSITION	03-10-03	8:31	P	SCHEDULED EUTHANASIA
20380-03	F	50 MG/KG/DAY	DISPOSITION	03-10-03	8:31	P	SCHEDULED EUTHANASIA
20381-02	F	50 MG/KG/DAY	DISPOSITION	03-10-03	8:31	P	SCHEDULED EUTHANASIA
20381-10	F	50 MG/KG/DAY	DISPOSITION	03-10-03	8:31	P	SCHEDULED EUTHANASIA
20381-11	F	50 MG/KG/DAY	DISPOSITION	03-10-03	8:31	P	SCHEDULED EUTHANASIA
20383-02	F	50 MG/KG/DAY	DISPOSITION	03-10-03	8:31	P	SCHEDULED EUTHANASIA
20383-03	F	50 MG/KG/DAY	DISPOSITION	03-10-03	8:31	P	SCHEDULED EUTHANASIA

GRADE CODE: 1 - SLIGHT 2 - MODERATE 3 - SEVERE P - PRESENT

TABLE 11 (DAILY OBSERVATIONS)
PUBERTAL ASSAY OF SP 7077 VARIANT (TS02044) IN JUV. FEMALE RATS
INDIVIDUAL CLINICAL OBSERVATIONS [POSITIVE FINDINGS ONLY]

TABLE RANGE: 02-18-03 TO 03-10-03

ANIMAL	SEX	GROUP	CATEGORY	DATE	TIME	GRADE	OBSERVATIONS
20384-06	F	50 MG/KG/DAY	DISPOSITION	03-10-03	8:31	P	SCHEDULED EUTHANASIA
20377-03	F	150 MG/KG/DAY	DISPOSITION	03-10-03	8:31	P	SCHEDULED EUTHANASIA
20378-07	F	150 MG/KG/DAY	DISPOSITION	03-07-03	12:19	P	FOUND DEAD
20379-02	F	150 MG/KG/DAY	DISPOSITION	03-10-03	8:32	P	SCHEDULED EUTHANASIA
20379-04	F	150 MG/KG/DAY	DISPOSITION	03-10-03	8:32	P	SCHEDULED EUTHANASIA
20380-04	F	150 MG/KG/DAY	DISPOSITION	03-10-03	8:32	P	SCHEDULED EUTHANASIA
20380-08	F	150 MG/KG/DAY	DISPOSITION	03-03-03	8:04	P	FOUND DEAD
20381-07	F	150 MG/KG/DAY	DISPOSITION	03-10-03	8:32	P	SCHEDULED EUTHANASIA
20383-07	F	150 MG/KG/DAY	DISPOSITION	03-10-03	8:32	P	SCHEDULED EUTHANASIA
20383-08	F	150 MG/KG/DAY	DISPOSITION	03-03-03	8:40	P	FOUND DEAD
20383-09	F	150 MG/KG/DAY	DISPOSITION	03-10-03	8:32	P	SCHEDULED EUTHANASIA
20383-10	F	150 MG/KG/DAY	DISPOSITION	03-07-03	12:19	P	FOUND DEAD
20384-01	F	150 MG/KG/DAY	DISPOSITION	03-10-03	8:32	P	SCHEDULED EUTHANASIA
20384-05	F	150 MG/KG/DAY	DISPOSITION	03-10-03	8:32	P	SCHEDULED EUTHANASIA
20384-09	F	150 MG/KG/DAY	DISPOSITION	03-10-03	8:32	P	SCHEDULED EUTHANASIA
20384-10	F	150 MG/KG/DAY	DISPOSITION	03-10-03	8:32	P	SCHEDULED EUTHANASIA
20377-07	F	500 MG/KG/DAY	DISPOSITION	03-10-03	8:32	P	SCHEDULED EUTHANASIA
20378-01	F	500 MG/KG/DAY	DISPOSITION	03-10-03	8:32	P	SCHEDULED EUTHANASIA
20378-02	F	500 MG/KG/DAY	DISPOSITION	03-10-03	8:32	P	SCHEDULED EUTHANASIA
20378-05	F	500 MG/KG/DAY	DISPOSITION	03-10-03	8:32	P	SCHEDULED EUTHANASIA
20378-06	F	500 MG/KG/DAY	DISPOSITION	03-10-03	8:32	P	SCHEDULED EUTHANASIA
20379-05	F	500 MG/KG/DAY	DISPOSITION	03-10-03	8:32	P	SCHEDULED EUTHANASIA
20380-05	F	500 MG/KG/DAY	DISPOSITION	03-10-03	8:32	P	SCHEDULED EUTHANASIA
20380-06	F	500 MG/KG/DAY	DISPOSITION	03-03-03	12:12	P	FOUND DEAD
20380-07	F	500 MG/KG/DAY	DISPOSITION	03-10-03	8:32	P	SCHEDULED EUTHANASIA
20381-03	F	500 MG/KG/DAY	DISPOSITION	03-10-03	8:33	P	SCHEDULED EUTHANASIA
20381-05	F	500 MG/KG/DAY	DISPOSITION	03-10-03	8:33	P	SCHEDULED EUTHANASIA
20381-06	F	500 MG/KG/DAY	DISPOSITION	03-10-03	8:33	P	SCHEDULED EUTHANASIA
20383-01	F	500 MG/KG/DAY	DISPOSITION	03-10-03	8:33	P	SCHEDULED EUTHANASIA

GRADE CODE: 1 - SLIGHT 2 - MODERATE 3 - SEVERE P - PRESENT

TABLE 11 (DAILY OBSERVATIONS)
PUBERTAL ASSAY OF SP 7077 VARIANT (TS02044) IN JUV. FEMALE RATS
INDIVIDUAL CLINICAL OBSERVATIONS [POSITIVE FINDINGS ONLY]

TABLE RANGE: 02-18-03 TO 03-10-03

ANIMAL	SEX	GROUP	CATEGORY	DATE	TIME	GRADE	OBSERVATIONS
20383-04	F	500 MG/KG/DAY	DISPOSITION	03-10-03	8:33	P	SCHEDULED EUTHANASIA
20384-03	F	500 MG/KG/DAY	DISPOSITION	03-10-03	8:33	P	SCHEDULED EUTHANASIA

GRADE CODE: 1 - SLIGHT 2 - MODERATE 3 - SEVERE P - PRESENT

PCRDv4.05
03/19/2003

TABLE 12 (1-HOUR POST-DOSING)
PUBERTAL ASSAY OF SP 7077 VARIANT (TS02044) IN JUV. FEMALE RATS
INDIVIDUAL CLINICAL OBSERVATIONS

TABLE RANGE: 02-18-03 TO 03-09-03

ANIMAL	SEX	GROUP	CATEGORY	DATE	TIME	GRADE	OBSERVATIONS
20377-07	F	500 MG/KG/DAY	ORAL/DENTAL	03-03-03	11:51	1	SALIVATION
				03-07-03	11:45	1	SALIVATION
20378-01	F	500 MG/KG/DAY	ORAL/DENTAL	03-03-03	11:51	2	SALIVATION
				03-04-03	11:40	2	SALIVATION
				03-05-03	11:37	1	SALIVATION
				03-06-03	11:43	1	SALIVATION
				03-07-03	11:45	1	SALIVATION
				03-08-03	11:43	1	SALIVATION
				03-09-03	11:39	1	SALIVATION
20378-02	F	500 MG/KG/DAY	ORAL/DENTAL	03-03-03	11:52	1	SALIVATION
				03-04-03	11:40	2	SALIVATION
				03-05-03	11:37	1	SALIVATION
				03-07-03	11:45	1	SALIVATION
				03-08-03	11:43	1	SALIVATION
				03-09-03	11:39	1	SALIVATION
20378-05	F	500 MG/KG/DAY	ORAL/DENTAL	03-05-03	11:38	1	SALIVATION
				03-08-03	11:44	1	SALIVATION
20378-06	F	500 MG/KG/DAY	ORAL/DENTAL	03-03-03	11:52	2	SALIVATION
				03-05-03	11:38	1	SALIVATION
				03-06-03	11:44	1	SALIVATION
				03-07-03	11:46	1	SALIVATION
20379-05	F	500 MG/KG/DAY	ORAL/DENTAL	03-04-03	11:41	1	SALIVATION
				03-07-03	11:46	1	SALIVATION
				03-08-03	11:44	2	SALIVATION
20380-05	F	500 MG/KG/DAY	ORAL/DENTAL	03-05-03	11:39	1	SALIVATION
				03-08-03	11:45	1	SALIVATION
20380-07	F	500 MG/KG/DAY	ORAL/DENTAL	03-03-03	11:53	1	SALIVATION
				03-05-03	11:39	1	SALIVATION
				03-06-03	11:44	1	SALIVATION

GRADE CODE: 1 - SLIGHT 2 - MODERATE 3 - SEVERE P - PRESENT

TABLE 12 (1-HOUR POST-DOSING)
PUBERTAL ASSAY OF SP 7077 VARIANT (TS02044) IN JUV. FEMALE RATS
INDIVIDUAL CLINICAL OBSERVATIONS

TABLE RANGE: 02-18-03 TO 03-09-03

ANIMAL	SEX	GROUP	CATEGORY	DATE	TIME	GRADE	OBSERVATIONS
20380-07	F	500 MG/KG/DAY	ORAL/DENTAL	03-07-03	11:46	1	SALIVATION
20381-03	F	500 MG/KG/DAY	ORAL/DENTAL	03-07-03	11:47	1	SALIVATION
20381-05	F	500 MG/KG/DAY	ORAL/DENTAL	03-04-03	11:41	1	SALIVATION
				03-05-03	11:39	1	SALIVATION
				03-06-03	11:44	1	SALIVATION
				03-09-03	11:40	1	SALIVATION
20383-01	F	500 MG/KG/DAY	ORAL/DENTAL	03-03-03	11:54	1	SALIVATION
				03-04-03	11:42	1	SALIVATION
				03-05-03	11:40	1	SALIVATION
				03-07-03	11:47	1	SALIVATION
20383-04	F	500 MG/KG/DAY	ORAL/DENTAL	03-04-03	11:42	1	SALIVATION
20384-03	F	500 MG/KG/DAY	ORAL/DENTAL	03-03-03	11:54	1	SALIVATION
				03-04-03	11:42	1	SALIVATION
				03-05-03	11:40	2	SALIVATION
				03-07-03	11:47	1	SALIVATION
				03-09-03	11:41	1	SALIVATION

GRADE CODE: 1 - SLIGHT 2 - MODERATE 3 - SEVERE P - PRESENT

TABLE 13
PUBERTAL ASSAY OF SP 7077 VARIANT (TS02044) IN JUV. FEMALE RATS
INDIVIDUAL BODY WEIGHTS [G]

FEMALES

DAY	22	23	24	25	26	27	28	29	30	31
ANIMALS FROM GROUP 1: 0 MG/KG/DAY										
20377-06	41.5	45.0	48.5	56.7	61.5	65.7	70.1	75.5	81.6	88.2
20378-03	54.6	59.0	64.9	71.8	76.4	79.8	85.4	88.4	95.1	100.8
20379-01	58.4	62.5	65.6	70.8	75.1	79.2	83.4	87.9	93.1	99.5
20380-09	60.2	65.1	67.5	74.0	77.1	82.6	85.6	91.4	98.2	103.5
20380-10	56.0	60.9	63.9	68.4	73.6	77.5	81.1	86.1	91.9	98.3
20381-01	53.9	56.6	59.9	65.4	70.7	75.4	77.8	82.6	88.3	94.1
20381-04	55.6	58.3	62.6	68.1	73.4	77.5	81.7	87.8	93.5	99.4
20381-08	53.8	56.8	59.0	65.0	68.6	72.6	75.8	80.4	86.7	92.1
20381-09	51.4	52.0	55.4	62.9	64.7	68.6	72.3	77.0	81.6	87.1
20383-05	46.9	49.9	55.3	56.5	60.5	67.3	70.6	75.0	80.0	85.1
20383-06	48.7	53.5	58.2	60.9	67.3	71.9	75.4	79.7	87.5	90.3
20384-02	57.2	61.7	66.2	69.7	74.1	79.1	83.4	89.0	96.4	101.8
20384-04	54.7	60.0	65.3	69.3	74.7	80.2	83.5	87.8	97.0	102.1
20384-07	56.6	61.6	64.9	69.4	72.7	78.3	82.9	87.8	94.7	98.9
20384-08	48.4	52.7	56.3	58.8	63.2	67.3	71.2	74.7	80.9	86.1
MEAN	53.2	57.0	60.9	65.8	70.2	74.9	78.7	83.4	89.8	95.2
S.D.	4.97	5.47	5.38	5.56	5.57	5.52	5.66	5.85	6.40	6.46
N	15	15	15	15	15	15	15	15	15	15

TABLE 13
PUBERTAL ASSAY OF SP 7077 VARIANT (TS02044) IN JUV. FEMALE RATS
INDIVIDUAL BODY WEIGHTS [G]

	FEMALES									
DAY	32	33	34	35	36	37	38	39	40	41
ANIMALS FROM GROUP 1: 0 MG/KG/DAY										
20377-06	95.2	105.6	111.7	115.7	125.4	131.0	140.2	145.0	148.8	154.4
20378-03	106.6	116.3	119.5	124.7	131.1	136.5	142.2	149.3	153.6	161.3
20379-01	102.9	108.3	114.5	117.7	121.0	124.7	126.9	135.2	137.0	138.6
20380-09	110.1	115.8	122.5	125.9	133.3	139.1	144.7	150.3	154.4	159.3
20380-10	105.1	109.9	112.5	120.7	127.6	131.1	134.5	136.7	144.1	147.3
20381-01	99.9	105.3	109.3	114.4	118.3	123.8	127.1	129.8	137.0	139.3
20381-04	105.2	112.1	119.3	124.2	129.8	135.5	140.7	147.6	155.0	159.5
20381-08	97.8	104.3	108.9	115.3	120.3	124.0	131.4	134.0	141.3	146.7
20381-09	94.7	100.8	104.2	110.5	116.8	122.2	128.2	134.4	135.4	143.6
20383-05	93.5	98.2	104.9	110.0	114.4	120.3	124.7	128.5	134.6	141.8
20383-06	96.1	102.7	109.8	114.9	116.8	119.0	128.9	134.6	136.1	137.6
20384-02	109.3	117.3	123.5	130.1	136.8	139.8	146.2	155.0	158.5	163.7
20384-04	110.2	114.1	119.7	126.2	131.9	135.2	139.0	148.6	149.5	153.7
20384-07	106.4	114.0	119.9	126.0	130.8	135.5	142.2	145.2	152.7	158.0
20384-08	91.8	99.1	108.1	112.4	117.5	123.7	132.0	138.7	146.0	150.6
MEAN	101.7	108.3	113.9	119.2	124.8	129.4	135.3	140.9	145.6	150.4
S.D.	6.43	6.50	6.41	6.51	7.28	7.19	7.26	8.28	8.26	8.91
N	15	15	15	15	15	15	15	15	15	15

TABLE 13
PUBERTAL ASSAY OF SP 7077 VARIANT (TS02044) IN JUV. FEMALE RATS
INDIVIDUAL BODY WEIGHTS [G]

FEMALES

DAY 42

ANIMALS FROM GROUP 1:	0 MG/KG/DAY	
20377-06	157.3	SCHEDULED EUTH DAY 42
20378-03	162.2	SCHEDULED EUTH DAY 42
20379-01	134.4	SCHEDULED EUTH DAY 42
20380-09	164.0	SCHEDULED EUTH DAY 42
20380-10	151.7	SCHEDULED EUTH DAY 42
20381-01	145.7	SCHEDULED EUTH DAY 42
20381-04	150.8	SCHEDULED EUTH DAY 42
20381-08	150.5	SCHEDULED EUTH DAY 42
20381-09	144.6	SCHEDULED EUTH DAY 42
20383-05	145.5	SCHEDULED EUTH DAY 42
20383-06	139.8	SCHEDULED EUTH DAY 42
20384-02	164.2	SCHEDULED EUTH DAY 42
20384-04	156.9	SCHEDULED EUTH DAY 42
20384-07	161.4	SCHEDULED EUTH DAY 42
20384-08	151.9	SCHEDULED EUTH DAY 42
MEAN	152.1	
S.D.	9.01	
N	15	

TABLE 13
PUBERTAL ASSAY OF SP 7077 VARIANT (TS02044) IN JUV. FEMALE RATS
INDIVIDUAL BODY WEIGHTS [G]

FEMALES

DAY	22	23	24	25	26	27	28	29	30	31
ANIMALS FROM GROUP 2: 50 MG/KG/DAY										
20377-05	41.3	44.3	48.6	52.8	57.7	60.9	64.9	68.4	74.0	80.0
20378-04	55.4	59.2	64.6	68.8	73.2	79.0	82.9	87.7	94.6	99.7
20378-09	52.0	52.7	59.5	63.9	69.1	76.9	80.4	86.1	92.1	96.9
20378-11	52.6	55.1	61.2	66.1	72.7	76.0	80.9	85.6	93.1	98.4
20379-03	53.8	57.8	60.4	65.4	70.0	74.2	77.8	82.8	89.7	96.0
20379-09	59.1	64.3	68.2	74.2	80.0	86.3	89.4	95.4	105.0	108.8
20379-11	58.1	62.1	66.7	69.8	74.7	78.8	84.9	90.7	97.1	102.6
20380-02	53.2	58.4	63.4	66.4	72.7	76.9	81.3	86.9	92.9	98.4
20380-03	60.9	65.8	71.0	73.8	79.7	84.9	90.0	95.5	102.7	110.6
20381-02	53.5	56.0	59.8	65.4	69.9	75.7	79.7	84.6	90.7	97.8
20381-10	49.8	50.9	54.5	61.1	65.1	68.9	72.1	75.7	83.3	87.0
20381-11	59.2	61.5	66.5	72.0	79.1	82.5	88.8	94.3	101.1	106.8
20383-02	48.1	53.0	56.9	59.8	64.6	70.2	75.4	79.6	85.8	93.1
20383-03	45.1	49.2	53.0	56.8	59.6	64.9	69.0	72.0	77.2	81.8
20384-06	55.2	58.9	63.6	68.8	72.3	76.9	82.1	86.1	92.5	96.4
MEAN	53.2	56.6	61.2	65.7	70.7	75.5	80.0	84.8	91.5	97.0
S.D.	5.41	5.88	6.10	6.09	6.74	6.98	7.28	8.09	8.71	8.86
N	15	15	15	15	15	15	15	15	15	15

TABLE 13
PUBERTAL ASSAY OF SP 7077 VARIANT (TS02044) IN JUV. FEMALE RATS
INDIVIDUAL BODY WEIGHTS [G]

FEMALES

DAY	32	33	34	35	36	37	38	39	40	41
ANIMALS FROM GROUP 2: 50 MG/KG/DAY										
20377-05	86.2	92.9	100.4	101.6	109.8	113.4	118.5	123.2	128.6	131.5
20378-04	106.1	112.6	118.0	122.5	128.1	135.0	139.5	146.6	148.2	155.5
20378-09	105.5	114.1	121.4	124.0	130.0	138.3	143.9	148.6	154.7	162.2
20378-11	104.6	113.4	118.4	123.9	130.3	132.6	140.1	146.3	149.2	154.6
20379-03	102.3	110.1	115.5	122.8	127.3	132.6	140.3	144.4	150.2	159.2
20379-09	121.5	127.4	139.4	142.3	153.2	162.6	168.8	172.5	178.7	188.3
20379-11	109.1	117.8	124.9	127.4	135.1	145.0	149.7	159.6	162.8	163.1
20380-02	105.1	113.5	120.6	123.9	130.8	133.4	139.0	144.8	149.3	153.1
20380-03	114.8	123.4	130.5	135.9	143.0	149.3	153.2	163.9	163.6	172.0
20381-02	102.9	110.9	117.9	123.6	127.2	131.9	136.5	143.0	146.9	147.7
20381-10	94.9	101.1	109.0	113.8	119.0	124.7	127.4	133.6	139.4	141.7
20381-11	113.7	122.0	129.5	136.9	139.5	146.8	153.1	158.9	164.3	164.9
20383-02	99.5	107.8	111.6	115.5	122.6	126.9	131.9	137.0	145.2	151.0
20383-03	88.2	93.2	99.0	103.2	107.0	112.3	115.1	120.4	125.2	130.6
20384-06	103.2	110.2	119.7	124.5	128.0	135.8	141.6	145.3	153.0	151.8
MEAN	103.8	111.4	118.4	122.8	128.7	134.7	139.9	145.9	150.6	155.1
S.D.	9.35	9.88	10.73	11.17	11.76	13.07	13.65	14.15	13.69	14.73
N	15	15	15	15	15	15	15	15	15	15

TABLE 13
PUBERTAL ASSAY OF SP 7077 VARIANT (TS02044) IN JUV. FEMALE RATS
INDIVIDUAL BODY WEIGHTS [G]

FEMALES

DAY 42

ANIMALS FROM GROUP 2:	50 MG/KG/DAY	
20377-05	135.3	SCHEDULED EUTH DAY 42
20378-04	158.8	SCHEDULED EUTH DAY 42
20378-09	158.9	SCHEDULED EUTH DAY 42
20378-11	157.2	SCHEDULED EUTH DAY 42
20379-03	159.4	SCHEDULED EUTH DAY 42
20379-09	191.7	SCHEDULED EUTH DAY 42
20379-11	170.6	SCHEDULED EUTH DAY 42
20380-02	159.2	SCHEDULED EUTH DAY 42
20380-03	170.2	SCHEDULED EUTH DAY 42
20381-02	150.7	SCHEDULED EUTH DAY 42
20381-10	147.0	SCHEDULED EUTH DAY 42
20381-11	171.7	SCHEDULED EUTH DAY 42
20383-02	157.7	SCHEDULED EUTH DAY 42
20383-03	131.1	SCHEDULED EUTH DAY 42
20384-06	158.3	SCHEDULED EUTH DAY 42
MEAN	158.5	
S.D.	14.75	
N	15	

TABLE 13
PUBERTAL ASSAY OF SP 7077 VARIANT (TS02044) IN JUV. FEMALE RATS
INDIVIDUAL BODY WEIGHTS [G]

FEMALES

DAY	22	23	24	25	26	27	28	29	30	31
ANIMALS FROM GROUP 3: 150 MG/KG/DAY										
20377-03	41.9	44.3	47.4	52.5	56.8	61.3	64.8	69.3	75.2	81.2
20378-07	56.5	60.7	65.4	69.8	74.4	78.3	82.8	88.1	94.6	99.1
20379-02	61.8	66.1	69.7	74.7	80.3	83.5	89.5	96.2	102.1	108.2
20379-04	60.2	64.3	68.4	74.1	77.6	81.8	86.4	91.6	97.8	104.0
20380-04	57.1	62.6	68.0	71.9	76.3	80.1	78.9	89.6	96.2	102.3
20380-08	54.5	58.3	61.5	65.9	70.0	73.4	78.8	83.6	90.1	93.5
20381-07	53.4	59.9	63.8	68.6	73.7	78.8	83.6	89.1	95.7	101.1
20383-07	50.9	53.1	57.3	61.2	65.6	69.2	73.4	76.9	84.6	91.0
20383-08	54.8	57.5	61.9	66.8	70.4	74.7	79.7	85.2	92.1	96.8
20383-09	48.4	52.4	55.4	58.8	62.8	67.5	71.6	76.6	84.3	88.3
20383-10	49.7	52.6	55.8	57.2	63.2	68.5	73.1	76.4	82.9	86.6
20384-01	53.2	57.7	62.0	66.8	71.6	76.8	81.0	85.8	89.7	95.1
20384-05	50.3	56.7	62.0	65.2	70.8	75.3	78.7	83.9	87.5	92.2
20384-09	50.0	53.6	56.9	60.0	63.5	66.4	70.5	73.6	78.6	82.9
20384-10	56.6	61.4	64.2	68.9	72.8	77.1	81.6	85.5	92.5	94.9
MEAN	53.3	57.4	61.3	65.5	70.0	74.2	78.3	83.4	89.6	94.5
S.D.	5.01	5.59	5.93	6.41	6.45	6.35	6.54	7.42	7.44	7.75
N	15	15	15	15	15	15	15	15	15	15

TABLE 13
PUBERTAL ASSAY OF SP 7077 VARIANT (TS02044) IN JUV. FEMALE RATS
INDIVIDUAL BODY WEIGHTS [G]

FEMALES

DAY	32	33	34	35	36	37	38	39	40	41
ANIMALS FROM GROUP 3: 150 MG/KG/DAY										
20377-03	87.5	96.4	101.8	105.1	111.6	118.7	125.1	130.9	129.3	139.2
20378-07	103.1	110.5	117.3	119.7	124.8	130.6	134.6	137.1	DIED DAY 39	
20379-02	117.8	119.7	129.0	134.4	143.0	149.5	159.2	167.3	172.0	177.5
20379-04	111.7	119.5	124.7	131.0	138.5	144.9	150.6	156.2	162.5	171.5
20380-04	110.2	113.3	119.9	125.4	133.2	138.6	145.0	145.5	155.4	161.0
20380-08	101.3	108.5	114.1	NA	DIED DAY 35					
20381-07	107.3	113.7	123.0	125.4	132.6	136.5	139.3	147.6	151.9	158.2
20383-07	96.8	101.2	109.0	113.6	121.3	126.3	130.9	133.9	140.1	147.2
20383-08	104.0	112.0	117.9	NA	DIED DAY 35					
20383-09	92.7	103.8	107.7	110.8	119.1	123.7	127.3	135.0	140.7	146.2
20383-10	92.2	101.5	106.2	113.6	119.5	126.7	133.4	141.3	DIED DAY 39	
20384-01	100.3	106.8	109.5	116.2	124.0	125.4	129.5	134.9	140.0	141.2
20384-05	97.7	101.8	108.1	111.8	116.7	119.7	126.0	127.7	134.7	137.7
20384-09	88.7	95.5	102.6	106.9	113.1	120.2	126.5	132.4	137.4	145.8
20384-10	103.6	110.0	115.1	121.9	128.0	132.0	139.6	142.1	149.4	156.3
MEAN	101.0	107.6	113.7	118.1	125.0	130.2	135.9	140.9	146.7	152.9
S.D.	8.66	7.52	8.20	9.07	9.62	9.74	10.48	11.10	12.87	13.19
N	15	15	15	13	13	13	13	13	11	11

NA = NOT APPLICABLE

TABLE 13
PUBERTAL ASSAY OF SP 7077 VARIANT (TS02044) IN JUV. FEMALE RATS
INDIVIDUAL BODY WEIGHTS [G]

FEMALES

DAY 42

ANIMALS FROM GROUP 3: 150 MG/KG/DAY

20377-03	140.5	SCHEDULED EUTH DAY 42
20379-02	187.5	SCHEDULED EUTH DAY 42
20379-04	179.0	SCHEDULED EUTH DAY 42
20380-04	164.4	SCHEDULED EUTH DAY 42
20381-07	159.0	SCHEDULED EUTH DAY 42
20383-07	148.1	SCHEDULED EUTH DAY 42
20383-09	151.2	SCHEDULED EUTH DAY 42
20384-01	141.7	SCHEDULED EUTH DAY 42
20384-05	140.0	SCHEDULED EUTH DAY 42
20384-09	152.3	SCHEDULED EUTH DAY 42
20384-10	158.3	SCHEDULED EUTH DAY 42
MEAN	156.5	
S.D.	15.50	
N	11	

TABLE 13
PUBERTAL ASSAY OF SP 7077 VARIANT (TS02044) IN JUV. FEMALE RATS
INDIVIDUAL BODY WEIGHTS [G]

FEMALES

DAY	22	23	24	25	26	27	28	29	30	31
ANIMALS FROM GROUP 4: 500 MG/KG/DAY										
20377-07	40.2	43.5	46.7	52.9	57.9	62.1	66.8	72.1	78.4	83.4
20378-01	55.2	60.0	65.1	72.7	79.3	82.3	86.7	93.3	99.3	105.9
20378-02	51.2	54.0	61.1	66.6	72.0	75.3	81.2	85.2	92.6	97.9
20378-05	55.0	58.1	63.8	69.0	72.9	75.0	78.5	84.6	89.0	96.7
20378-06	60.3	61.5	66.4	72.2	77.4	81.3	84.6	89.6	95.3	101.3
20379-05	58.8	62.2	66.3	71.1	77.8	82.9	88.4	94.5	100.7	106.3
20380-05	50.2	54.9	59.6	63.4	69.4	73.3	75.3	80.6	87.2	92.8
20380-06	56.9	60.0	64.2	68.0	71.4	75.1	78.7	83.8	89.5	96.1
20380-07	59.3	62.3	66.8	71.7	76.7	80.8	86.6	91.8	101.0	103.7
20381-03	49.5	50.9	55.4	59.1	62.8	66.1	70.8	75.2	80.4	85.2
20381-05	55.2	56.6	61.6	66.8	71.7	76.4	82.2	88.2	94.9	100.6
20381-06	49.8	49.6	56.5	62.0	67.6	72.2	78.7	85.0	94.5	100.0
20383-01	51.5	54.2	58.5	62.0	67.0	70.7	74.6	78.6	84.8	89.8
20383-04	54.5	58.8	62.8	66.0	70.4	74.9	80.5	85.4	92.6	96.9
20384-03	53.3	58.3	62.6	69.0	73.3	75.6	81.1	84.9	89.9	95.1
MEAN	53.4	56.3	61.2	66.2	71.2	74.9	79.6	84.9	91.3	96.8
S.D.	5.04	5.27	5.32	5.49	5.78	5.77	5.99	6.33	6.78	6.81
N	15	15	15	15	15	15	15	15	15	15

TABLE 13
PUBERTAL ASSAY OF SP 7077 VARIANT (TS02044) IN JUV. FEMALE RATS
INDIVIDUAL BODY WEIGHTS [G]

FEMALES

DAY	32	33	34	35	36	37	38	39	40	41
ANIMALS FROM GROUP 4: 500 MG/KG/DAY										
20377-07	89.1	95.8	100.9	107.6	115.5	118.1	122.4	127.9	127.8	135.7
20378-01	110.9	117.9	127.1	127.9	134.8	138.6	141.4	149.3	153.6	158.6
20378-02	101.8	108.7	114.7	118.4	126.6	133.2	136.8	142.4	144.6	151.3
20378-05	102.3	108.0	113.3	115.9	124.6	126.6	131.5	133.8	140.6	144.0
20378-06	106.6	113.0	117.8	122.6	130.0	132.3	137.2	139.9	144.4	149.2
20379-05	114.7	123.3	126.8	134.0	139.6	145.3	152.7	156.1	161.5	161.6
20380-05	97.4	105.9	110.7	113.9	120.9	127.2	132.9	137.0	138.4	145.9
20380-06	100.9	108.7	112.4	115.4	DIED DAY 35					
20380-07	111.3	119.9	125.8	130.8	136.8	143.0	149.9	155.7	158.4	167.4
20381-03	91.7	97.5	104.1	108.6	115.0	118.5	123.2	129.7	132.7	138.6
20381-05	107.2	114.3	120.3	127.3	132.4	135.7	141.7	145.8	148.8	158.4
20381-06	106.2	115.4	121.3	126.1	135.4	139.9	142.4	149.2	153.6	156.0
20383-01	95.6	103.4	109.7	115.4	118.7	124.7	129.8	136.2	143.3	143.5
20383-04	103.0	111.1	114.8	119.4	126.3	131.4	135.3	142.4	145.8	152.9
20384-03	97.4	102.6	107.7	112.0	117.4	121.6	124.2	126.4	130.3	135.9
MEAN	102.4	109.7	115.2	119.7	126.7	131.2	135.8	140.8	144.6	149.9
S.D.	7.31	7.90	8.04	8.10	8.34	8.76	9.34	9.65	10.16	9.83
N	15	15	15	15	14	14	14	14	14	14

TABLE 13
PUBERTAL ASSAY OF SP 7077 VARIANT (TS02044) IN JUV. FEMALE RATS
INDIVIDUAL BODY WEIGHTS [G]

FEMALES

DAY 42

ANIMALS FROM GROUP 4: 500 MG/KG/DAY

20377-07	139.0	SCHEDULED EUTH DAY 42
20378-01	158.1	SCHEDULED EUTH DAY 42
20378-02	157.2	SCHEDULED EUTH DAY 42
20378-05	146.8	SCHEDULED EUTH DAY 42
20378-06	154.6	SCHEDULED EUTH DAY 42
20379-05	163.4	SCHEDULED EUTH DAY 42
20380-05	148.3	SCHEDULED EUTH DAY 42
20380-07	168.3	SCHEDULED EUTH DAY 42
20381-03	142.8	SCHEDULED EUTH DAY 42
20381-05	160.5	SCHEDULED EUTH DAY 42
20381-06	157.7	SCHEDULED EUTH DAY 42
20383-01	147.2	SCHEDULED EUTH DAY 42
20383-04	151.1	SCHEDULED EUTH DAY 42
20384-03	138.3	SCHEDULED EUTH DAY 42
MEAN	152.4	
S.D.	9.09	
N	14	

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03/19/2003
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TABLE 14
PUBERTAL ASSAY OF SP 7077 VARIANT (TS02044) IN JUV. FEMALE RATS
INDIVIDUAL BODY WEIGHT CHANGES [G]

FEMALES

DAY	22- 23	23- 24	24- 25	25- 26	26- 27	27- 28	28- 29	29- 30	30- 31	31- 32
ANIMALS FROM GROUP 1: 0 MG/KG/DAY										
20377-06	3.5	3.5	8.2	4.8	4.2	4.4	5.4	6.1	6.6	7.0
20378-03	4.4	5.9	6.9	4.6	3.4	5.6	3.0	6.7	5.7	5.8
20379-01	4.1	3.1	5.2	4.3	4.1	4.2	4.5	5.2	6.4	3.4
20380-09	4.9	2.4	6.5	3.1	5.5	3.0	5.8	6.8	5.3	6.6
20380-10	4.9	3.0	4.5	5.2	3.9	3.6	5.0	5.8	6.4	6.8
20381-01	2.7	3.3	5.5	5.3	4.7	2.4	4.8	5.7	5.8	5.8
20381-04	2.7	4.3	5.5	5.3	4.1	4.2	6.1	5.7	5.9	5.8
20381-08	3.0	2.2	6.0	3.6	4.0	3.2	4.6	6.3	5.4	5.7
20381-09	0.6	3.4	7.5	1.8	3.9	3.7	4.7	4.6	5.5	7.6
20383-05	3.0	5.4	1.2	4.0	6.8	3.3	4.4	5.0	5.1	8.4
20383-06	4.8	4.7	2.7	6.4	4.6	3.5	4.3	7.8	2.8	5.8
20384-02	4.5	4.5	3.5	4.4	5.0	4.3	5.6	7.4	5.4	7.5
20384-04	5.3	5.3	4.0	5.4	5.5	3.3	4.3	9.2	5.1	8.1
20384-07	5.0	3.3	4.5	3.3	5.6	4.6	4.9	6.9	4.2	7.5
20384-08	4.3	3.6	2.5	4.4	4.1	3.9	3.5	6.2	5.2	5.7
MEAN	3.8	3.9	4.9	4.4	4.6	3.8	4.7	6.4	5.4	6.5
S.D.	1.26	1.11	1.96	1.13	0.90	0.78	0.82	1.18	0.94	1.27
N	15	15	15	15	15	15	15	15	15	15

TABLE 14
PUBERTAL ASSAY OF SP 7077 VARIANT (TS02044) IN JUV. FEMALE RATS
INDIVIDUAL BODY WEIGHT CHANGES [G]

FEMALES

DAY	32- 33	33- 34	34- 35	35- 36	36- 37	37- 38	38- 39	39- 40	40- 41	41- 42
ANIMALS FROM GROUP 1: 0 MG/KG/DAY										
20377-06	10.4	6.1	4.0	9.7	5.6	9.2	4.8	3.8	5.6	2.9
20378-03	9.7	3.2	5.2	6.4	5.4	5.7	7.1	4.3	7.7	0.9
20379-01	5.4	6.2	3.2	3.3	3.7	2.2	8.3	1.8	1.6	-4.2
20380-09	5.7	6.7	3.4	7.4	5.8	5.6	5.6	4.1	4.9	4.7
20380-10	4.8	2.6	8.2	6.9	3.5	3.4	2.2	7.4	3.2	4.4
20381-01	5.4	4.0	5.1	3.9	5.5	3.3	2.7	7.2	2.3	6.4
20381-04	6.9	7.2	4.9	5.6	5.7	5.2	6.9	7.4	4.5	-8.7
20381-08	6.5	4.6	6.4	5.0	3.7	7.4	2.6	7.3	5.4	3.8
20381-09	6.1	3.4	6.3	6.3	5.4	6.0	6.2	1.0	8.2	1.0
20383-05	4.7	6.7	5.1	4.4	5.9	4.4	3.8	6.1	7.2	3.7
20383-06	6.6	7.1	5.1	1.9	2.2	9.9	5.7	1.5	1.5	2.2
20384-02	8.0	6.2	6.6	6.7	3.0	6.4	8.8	3.5	5.2	0.5
20384-04	3.9	5.6	6.5	5.7	3.3	3.8	9.6	0.9	4.2	3.2
20384-07	7.6	5.9	6.1	4.8	4.7	6.7	3.0	7.5	5.3	3.4
20384-08	7.3	9.0	4.3	5.1	6.2	8.3	6.7	7.3	4.6	1.3
MEAN	6.6	5.6	5.4	5.5	4.6	5.8	5.6	4.7	4.8	1.7
S.D.	1.81	1.75	1.35	1.86	1.28	2.23	2.37	2.59	2.03	3.77
N	15	15	15	15	15	15	15	15	15	15

TABLE 14
PUBERTAL ASSAY OF SP 7077 VARIANT (TS02044) IN JUV. FEMALE RATS
INDIVIDUAL BODY WEIGHT CHANGES [G]

FEMALES

DAY 22- 42

ANIMALS FROM GROUP 1: 0 MG/KG/DAY

20377-06	115.8	SCHEDULED EUTH DAY 42
20378-03	107.6	SCHEDULED EUTH DAY 42
20379-01	76.0	SCHEDULED EUTH DAY 42
20380-09	103.8	SCHEDULED EUTH DAY 42
20380-10	95.7	SCHEDULED EUTH DAY 42
20381-01	91.8	SCHEDULED EUTH DAY 42
20381-04	95.2	SCHEDULED EUTH DAY 42
20381-08	96.7	SCHEDULED EUTH DAY 42
20381-09	93.2	SCHEDULED EUTH DAY 42
20383-05	98.6	SCHEDULED EUTH DAY 42
20383-06	91.1	SCHEDULED EUTH DAY 42
20384-02	107.0	SCHEDULED EUTH DAY 42
20384-04	102.2	SCHEDULED EUTH DAY 42
20384-07	104.8	SCHEDULED EUTH DAY 42
20384-08	103.5	SCHEDULED EUTH DAY 42
MEAN	98.9	
S.D.	9.32	
N	15	

TABLE 14
PUBERTAL ASSAY OF SP 7077 VARIANT (TS02044) IN JUV. FEMALE RATS
INDIVIDUAL BODY WEIGHT CHANGES [G]

FEMALES

DAY	22- 23	23- 24	24- 25	25- 26	26- 27	27- 28	28- 29	29- 30	30- 31	31- 32
ANIMALS FROM GROUP 2: 50 MG/KG/DAY										
20377-05	3.0	4.3	4.2	4.9	3.2	4.0	3.5	5.6	6.0	6.2
20378-04	3.8	5.4	4.2	4.4	5.8	3.9	4.8	6.9	5.1	6.4
20378-09	0.7	6.8	4.4	5.2	7.8	3.5	5.7	6.0	4.8	8.6
20378-11	2.5	6.1	4.9	6.6	3.3	4.9	4.7	7.5	5.3	6.2
20379-03	4.0	2.6	5.0	4.6	4.2	3.6	5.0	6.9	6.3	6.3
20379-09	5.2	3.9	6.0	5.8	6.3	3.1	6.0	9.6	3.8	12.7
20379-11	4.0	4.6	3.1	4.9	4.1	6.1	5.8	6.4	5.5	6.5
20380-02	5.2	5.0	3.0	6.3	4.2	4.4	5.6	6.0	5.5	6.7
20380-03	4.9	5.2	2.8	5.9	5.2	5.1	5.5	7.2	7.9	4.2
20381-02	2.5	3.8	5.6	4.5	5.8	4.0	4.9	6.1	7.1	5.1
20381-10	1.1	3.6	6.6	4.0	3.8	3.2	3.6	7.6	3.7	7.9
20381-11	2.3	5.0	5.5	7.1	3.4	6.3	5.5	6.8	5.7	6.9
20383-02	4.9	3.9	2.9	4.8	5.6	5.2	4.2	6.2	7.3	6.4
20383-03	4.1	3.8	3.8	2.8	5.3	4.1	3.0	5.2	4.6	6.4
20384-06	3.7	4.7	5.2	3.5	4.6	5.2	4.0	6.4	3.9	6.8
MEAN	3.5	4.6	4.5	5.0	4.8	4.4	4.8	6.7	5.5	6.9
S.D.	1.41	1.06	1.20	1.17	1.29	0.99	0.94	1.05	1.27	1.90
N	15	15	15	15	15	15	15	15	15	15

TABLE 14
PUBERTAL ASSAY OF SP 7077 VARIANT (TS02044) IN JUV. FEMALE RATS
INDIVIDUAL BODY WEIGHT CHANGES [G]

FEMALES

DAY	32- 33	33- 34	34- 35	35- 36	36- 37	37- 38	38- 39	39- 40	40- 41	41- 42
ANIMALS FROM GROUP 2: 50 MG/KG/DAY										
20377-05	6.7	7.5	1.2	8.2	3.6	5.1	4.7	5.4	2.9	3.8
20378-04	6.5	5.4	4.5	5.6	6.9	4.5	7.1	1.6	7.3	3.3
20378-09	8.6	7.3	2.6	6.0	8.3	5.6	4.7	6.1	7.5	-3.3
20378-11	8.8	5.0	5.5	6.4	2.3	7.5	6.2	2.9	5.4	2.6
20379-03	7.8	5.4	7.3	4.5	5.3	7.7	4.1	5.8	9.0	0.2
20379-09	5.9	12.0	2.9	10.9	9.4	6.2	3.7	6.2	9.6	3.4
20379-11	8.7	7.1	2.5	7.7	9.9	4.7	9.9	3.2	0.3	7.5
20380-02	8.4	7.1	3.3	6.9	2.6	5.6	5.8	4.5	3.8	6.1
20380-03	8.6	7.1	5.4	7.1	6.3	3.9	10.7	-0.3	8.4	-1.8
20381-02	8.0	7.0	5.7	3.6	4.7	4.6	6.5	3.9	0.8	3.0
20381-10	6.2	7.9	4.8	5.2	5.7	2.7	6.2	5.8	2.3	5.3
20381-11	8.3	7.5	7.4	2.6	7.3	6.3	5.8	5.4	0.6	6.8
20383-02	8.3	3.8	3.9	7.1	4.3	5.0	5.1	8.2	5.8	6.7
20383-03	5.0	5.8	4.2	3.8	5.3	2.8	5.3	4.8	5.4	0.5
20384-06	7.0	9.5	4.8	3.5	7.8	5.8	3.7	7.7	-1.2	6.5
MEAN	7.5	7.0	4.4	5.9	6.0	5.2	6.0	4.7	4.5	3.4
S.D.	1.21	1.95	1.74	2.18	2.31	1.45	2.03	2.23	3.47	3.29
N	15	15	15	15	15	15	15	15	15	15

TABLE 14
PUBERTAL ASSAY OF SP 7077 VARIANT (TS02044) IN JUV. FEMALE RATS
INDIVIDUAL BODY WEIGHT CHANGES [G]

FEMALES

DAY 22- 42

ANIMALS FROM GROUP 2: 50 MG/KG/DAY

20377-05	94.0	SCHEDULED EUTH DAY 42
20378-04	103.4	SCHEDULED EUTH DAY 42
20378-09	106.9	SCHEDULED EUTH DAY 42
20378-11	104.6	SCHEDULED EUTH DAY 42
20379-03	105.6	SCHEDULED EUTH DAY 42
20379-09	132.6	SCHEDULED EUTH DAY 42
20379-11	112.5	SCHEDULED EUTH DAY 42
20380-02	106.0	SCHEDULED EUTH DAY 42
20380-03	109.3	SCHEDULED EUTH DAY 42
20381-02	97.2	SCHEDULED EUTH DAY 42
20381-10	97.2	SCHEDULED EUTH DAY 42
20381-11	112.5	SCHEDULED EUTH DAY 42
20383-02	109.6	SCHEDULED EUTH DAY 42
20383-03	86.0	SCHEDULED EUTH DAY 42
20384-06	103.1	SCHEDULED EUTH DAY 42
MEAN	105.4	
S.D.	10.44	
N	15	

TABLE 14
PUBERTAL ASSAY OF SP 7077 VARIANT (TS02044) IN JUV. FEMALE RATS
INDIVIDUAL BODY WEIGHT CHANGES (G)

FEMALES

DAY	22- 23	23- 24	24- 25	25- 26	26- 27	27- 28	28- 29	29- 30	30- 31	31- 32
ANIMALS FROM GROUP 3: 150 MG/KG/DAY										
20377-03	2.4	3.1	5.1	4.3	4.5	3.5	4.5	5.9	6.0	6.3
20378-07	4.2	4.7	4.4	4.6	3.9	4.5	5.3	6.5	4.5	4.0
20379-02	4.3	3.6	5.0	5.6	3.2	6.0	6.7	5.9	6.1	9.6
20379-04	4.1	4.1	5.7	3.5	4.2	4.6	5.2	6.2	6.2	7.7
20380-04	5.5	5.4	3.9	4.4	3.8	-1.2	10.7	6.6	6.1	7.9
20380-08	3.8	3.2	4.4	4.1	3.4	5.4	4.8	6.5	3.4	7.8
20381-07	6.5	3.9	4.8	5.1	5.1	4.8	5.5	6.6	5.4	6.2
20383-07	2.2	4.2	3.9	4.4	3.6	4.2	3.5	7.7	6.4	5.8
20383-08	2.7	4.4	4.9	3.6	4.3	5.0	5.5	6.9	4.7	7.2
20383-09	4.0	3.0	3.4	4.0	4.7	4.1	5.0	7.7	4.0	4.4
20383-10	2.9	3.2	1.4	6.0	5.3	4.6	3.3	6.5	3.7	5.6
20384-01	4.5	4.3	4.8	4.8	5.2	4.2	4.8	3.9	5.4	5.2
20384-05	6.4	5.3	3.2	5.6	4.5	3.4	5.2	3.6	4.7	5.5
20384-09	3.6	3.3	3.1	3.5	2.9	4.1	3.1	5.0	4.3	5.8
20384-10	4.8	2.8	4.7	3.9	4.3	4.5	3.9	7.0	2.4	8.7
MEAN	4.1	3.9	4.2	4.5	4.2	4.1	5.1	6.2	4.9	6.5
S.D.	1.31	0.82	1.07	0.79	0.73	1.61	1.81	1.19	1.19	1.59
N	15	15	15	15	15	15	15	15	15	15

TABLE 14
PUBERTAL ASSAY OF SP 7077 VARIANT (TS02044) IN JUV. FEMALE RATS
INDIVIDUAL BODY WEIGHT CHANGES [G]

	FEMALES									
DAY	32- 33	33- 34	34- 35	35- 36	36- 37	37- 38	38- 39	39- 40	40- 41	41- 42
ANIMALS FROM GROUP 3: 150 MG/KG/DAY										
20377-03	8.9	5.4	3.3	6.5	7.1	6.4	5.8	-1.6	9.9	1.3
20378-07	7.4	6.8	2.4	5.1	5.8	4.0	2.5	DIED DAY 39		
20379-02	1.9	9.3	5.4	8.6	6.5	9.7	8.1	4.7	5.5	10.0
20379-04	7.8	5.2	6.3	7.5	6.4	5.7	5.6	6.3	9.0	7.5
20380-04	3.1	6.6	5.5	7.8	5.4	6.4	0.5	9.9	5.6	3.4
20380-08	7.2	5.6	NA	DIED DAY 35						
20381-07	6.4	9.3	2.4	7.2	3.9	2.8	8.3	4.3	6.3	0.8
20383-07	4.4	7.8	4.6	7.7	5.0	4.6	3.0	6.2	7.1	0.9
20383-08	8.0	5.9	NA	DIED DAY 35						
20383-09	11.1	3.9	3.1	8.3	4.6	3.6	7.7	5.7	5.5	5.0
20383-10	9.3	4.7	7.4	5.9	7.2	6.7	7.9	DIED DAY 39		
20384-01	6.5	2.7	6.7	7.8	1.4	4.1	5.4	5.1	1.2	0.5
20384-05	4.1	6.3	3.7	4.9	3.0	6.3	1.7	7.0	3.0	2.3
20384-09	6.8	7.1	4.3	6.2	7.1	6.3	5.9	5.0	8.4	6.5
20384-10	6.4	5.1	6.8	6.1	4.0	7.6	2.5	7.3	6.9	2.0
MEAN	6.6	6.1	4.8	6.9	5.2	5.7	5.0	5.4	6.2	3.7
S.D.	2.43	1.81	1.72	1.19	1.77	1.87	2.67	2.81	2.53	3.18
N	15	15	13	13	13	13	13	11	11	11

NA = NOT APPLICABLE

TABLE 14
PUBERTAL ASSAY OF SP 7077 VARIANT (TS02044) IN JUV. FEMALE RATS
INDIVIDUAL BODY WEIGHT CHANGES [G]

FEMALES

DAY 22- 42

ANIMALS FROM GROUP 3: 150 MG/KG/DAY

20377-03	98.6	SCHEDULED EUTH DAY 42
20379-02	125.7	SCHEDULED EUTH DAY 42
20379-04	118.8	SCHEDULED EUTH DAY 42
20380-04	107.3	SCHEDULED EUTH DAY 42
20381-07	105.6	SCHEDULED EUTH DAY 42
20383-07	97.2	SCHEDULED EUTH DAY 42
20383-09	102.8	SCHEDULED EUTH DAY 42
20384-01	88.5	SCHEDULED EUTH DAY 42
20384-05	89.7	SCHEDULED EUTH DAY 42
20384-09	102.3	SCHEDULED EUTH DAY 42
20384-10	101.7	SCHEDULED EUTH DAY 42
MEAN	103.5	
S.D.	11.09	
N	11	

TABLE 14
PUBERTAL ASSAY OF SP 7077 VARIANT (TS02044) IN JUV. FEMALE RATS
INDIVIDUAL BODY WEIGHT CHANGES [G]

FEMALES

DAY	22- 23	23- 24	24- 25	25- 26	26- 27	27- 28	28- 29	29- 30	30- 31	31- 32
ANIMALS FROM GROUP 4: 500 MG/KG/DAY										
20377-07	3.3	3.2	6.2	5.0	4.2	4.7	5.3	6.3	5.0	5.7
20378-01	4.8	5.1	7.6	6.6	3.0	4.4	6.6	6.0	6.6	5.0
20378-02	2.8	7.1	5.5	5.4	3.3	5.9	4.0	7.4	5.3	3.9
20378-05	3.1	5.7	5.2	3.9	2.1	3.5	6.1	4.4	7.7	5.6
20378-06	1.2	4.9	5.8	5.2	3.9	3.3	5.0	5.7	6.0	5.3
20379-05	3.4	4.1	4.8	6.7	5.1	5.5	6.1	6.2	5.6	8.4
20380-05	4.7	4.7	3.8	6.0	3.9	2.0	5.3	6.6	5.6	4.6
20380-06	3.1	4.2	3.8	3.4	3.7	3.6	5.1	5.7	6.6	4.8
20380-07	3.0	4.5	4.9	5.0	4.1	5.8	5.2	9.2	2.7	7.6
20381-03	1.4	4.5	3.7	3.7	3.3	4.7	4.4	5.2	4.8	6.5
20381-05	1.4	5.0	5.2	4.9	4.7	5.8	6.0	6.7	5.7	6.6
20381-06	-0.2	6.9	5.5	5.6	4.6	6.5	6.3	9.5	5.5	6.2
20383-01	2.7	4.3	3.5	5.0	3.7	3.9	4.0	6.2	5.0	5.8
20383-04	4.3	4.0	3.2	4.4	4.5	5.6	4.9	7.2	4.3	6.1
20384-03	5.0	4.3	6.4	4.3	2.3	5.5	3.8	5.0	5.2	2.3
MEAN	2.9	4.8	5.0	5.0	3.8	4.7	5.2	6.5	5.4	5.6
S.D.	1.48	1.05	1.24	0.98	0.85	1.25	0.89	1.41	1.13	1.47
N	15	15	15	15	15	15	15	15	15	15

TABLE 14
PUBERTAL ASSAY OF SP 7077 VARIANT (TS02044) IN JUV. FEMALE RATS
INDIVIDUAL BODY WEIGHT CHANGES [G]

FEMALES

DAY	32- 33	33- 34	34- 35	35- 36	36- 37	37- 38	38- 39	39- 40	40- 41	41- 42
ANIMALS FROM GROUP 4: 500 MG/KG/DAY										
20377-07	6.7	5.1	6.7	7.9	2.6	4.3	5.5	-0.1	7.9	3.3
20378-01	7.0	9.2	0.8	6.9	3.8	2.8	7.9	4.3	5.0	-0.5
20378-02	6.9	6.0	3.7	8.2	6.6	3.6	5.6	2.2	6.7	5.9
20378-05	5.7	5.3	2.6	8.7	2.0	4.9	2.3	6.8	3.4	2.8
20378-06	6.4	4.8	4.8	7.4	2.3	4.9	2.7	4.5	4.8	5.4
20379-05	8.6	3.5	7.2	5.6	5.7	7.4	3.4	5.4	0.1	1.8
20380-05	8.5	4.8	3.2	7.0	6.3	5.7	4.1	1.4	7.5	2.4
20380-06	7.8	3.7	3.0	DIED DAY 35						
20380-07	8.6	5.9	5.0	6.0	6.2	6.9	5.8	2.7	9.0	0.9
20381-03	5.8	6.6	4.5	6.4	3.5	4.7	6.5	3.0	5.9	4.2
20381-05	7.1	6.0	7.0	5.1	3.3	6.0	4.1	3.0	9.6	2.1
20381-06	9.2	5.9	4.8	9.3	4.5	2.5	6.8	4.4	2.4	1.7
20383-01	7.8	6.3	5.7	3.3	6.0	5.1	6.4	7.1	0.2	3.7
20383-04	8.1	3.7	4.6	6.9	5.1	3.9	7.1	3.4	7.1	-1.8
20384-03	5.2	5.1	4.3	5.4	4.2	2.6	2.2	3.9	5.6	2.4
MEAN	7.3	5.5	4.5	6.7	4.4	4.7	5.0	3.7	5.4	2.5
S.D.	1.20	1.42	1.74	1.59	1.58	1.52	1.88	1.95	2.97	2.08
N	15	15	15	14	14	14	14	14	14	14

TABLE 14
PUBERTAL ASSAY OF SP 7077 VARIANT (TS02044) IN JUV. FEMALE RATS
INDIVIDUAL BODY WEIGHT CHANGES (G)

FEMALES

DAY 22- 42

ANIMALS FROM GROUP 4: 500 MG/KG/DAY

20377-07	98.8	SCHEDULED EUTH DAY 42
20378-01	102.9	SCHEDULED EUTH DAY 42
20378-02	106.0	SCHEDULED EUTH DAY 42
20378-05	91.8	SCHEDULED EUTH DAY 42
20378-06	94.3	SCHEDULED EUTH DAY 42
20379-05	104.6	SCHEDULED EUTH DAY 42
20380-05	98.1	SCHEDULED EUTH DAY 42
20380-07	109.0	SCHEDULED EUTH DAY 42
20381-03	93.3	SCHEDULED EUTH DAY 42
20381-05	105.3	SCHEDULED EUTH DAY 42
20381-06	107.9	SCHEDULED EUTH DAY 42
20383-01	95.7	SCHEDULED EUTH DAY 42
20383-04	96.6	SCHEDULED EUTH DAY 42
20384-03	85.0	SCHEDULED EUTH DAY 42
MEAN	99.2	
S.D.	6.98	
N	14	

PJTBWv4.09
03/19/2003
R:03/21/2003

TABLE 15
PUBERTAL ASSAY OF SP 7077 VARIANT (TS02044) IN JUV. FEMALE RATS
INDIVIDUAL ANIMAL DEVELOPMENTAL PARAMETERS - VAGINAL PATENCY

GROUP: 0 MG/KG/DAY SEX: FEMALES

ANIMAL	DAY OF RESPONSE	WEIGHT GRAMS	PND===> 30	31	32	33	34	35	36	37	38
20377-06	35	115.7	N	N	N	N	N	Y			
20378-03	38	142.2	N	N	N	N	N	N	N	N	Y
20379-01	33	108.3	N	N	N	Y					
20380-09	32	110.1	N	N	Y						
20380-10	33	109.9	N	N	N	Y					
20381-01	32	99.9	N	N	Y						
20381-04	33	112.1	N	N	N	Y					
20381-08	34	108.9	N	N	N	N	Y				
20381-09	34	104.2	N	N	N	N	Y				
20383-05	35	110.0	N	N	N	N	N	Y			
20383-06	34	109.8	N	N	N	N	Y				
20384-02	35	130.1	N	N	N	N	N	Y			
20384-04	35	126.2	N	N	N	N	N	Y			
20384-07	34	119.9	N	N	N	N	Y				
20384-08	37	123.7	N	N	N	N	N	N	N	Y	
MEAN	34.3	115.4									
S.D.	1.67	11.11									
N	15	15									

N = NEGATIVE RESPONSE, Y = POSITIVE RESPONSE
PND= POSTNATAL DAY

TABLE 15
PUBERTAL ASSAY OF SP 7077 VARIANT (TS02044) IN JUV. FEMALE RATS
INDIVIDUAL ANIMAL DEVELOPMENTAL PARAMETERS - VAGINAL PATENCY

GROUP: 50 MG/KG/DAY SEX: FEMALES

ANIMAL	DAY OF RESPONSE	WEIGHT GRAMS	PND===> 30	31	32	33	34	35	36	37	38
20377-05	35	101.6	N	N	N	N	N	Y			
20378-04	34	118.0	N	N	N	N	Y				
20378-09	36	130.0	N	N	N	N	N	N	Y		
20378-11	34	118.4	N	N	N	N	Y				
20379-03	34	115.5	N	N	N	N	Y				
20379-09	35	142.3	N	N	N	N	N	Y			
20379-11	38	149.7	N	N	N	N	N	N	N	N	Y
20380-02	35	123.9	N	N	N	N	N	Y			
20380-03	34	130.5	N	N	N	N	Y				
20381-02	36	127.2	N	N	N	N	N	N	Y		
20381-10	37	124.7	N	N	N	N	N	N	N	Y	
20381-11	35	136.9	N	N	N	N	N	Y			
20383-02	34	111.6	N	N	N	N	Y				
20383-03	34	99.0	N	N	N	N	Y				
20384-06	36	128.0	N	N	N	N	N	N	Y		
MEAN	35.1	123.8									
S.D.	1.25	13.85									
N	15	15									

N = NEGATIVE RESPONSE, Y = POSITIVE RESPONSE
PND= POSTNATAL DAY

TABLE 15
PUBERTAL ASSAY OF SP 7077 VARIANT (TS02044) IN JUV. FEMALE RATS
INDIVIDUAL ANIMAL DEVELOPMENTAL PARAMETERS - VAGINAL PATENCY

GROUP: 150 MG/KG/DAY SEX: FEMALES

ANIMAL	DAY OF RESPONSE	WEIGHT GRAMS	PND===> 30	31	32	33	34	35	36	37	38
20377-03	34	101.8	N	N	N	N	Y				
20378-07	34	117.3	N	N	N	N	Y				
20379-02	34	129.0	N	N	N	N	Y				
20379-04	34	124.7	N	N	N	N	Y				
20380-04	32	110.2	N	N	Y						
20380-08	32	101.3	N	N	Y						
20381-07	33	113.7	N	N	N	Y					
20383-07	33	101.2	N	N	N	Y					
20383-08	32	104.0	N	N	Y						
20383-09	34	107.7	N	N	N	N	Y				
20383-10	34	106.2	N	N	N	N	Y				
20384-01	35	116.2	N	N	N	N	N	Y			
20384-05	31	92.2	N	Y							
20384-09	35	106.9	N	N	N	N	N	Y			
20384-10	35	121.9	N	N	N	N	N	Y			
MEAN	33.5	110.3									
S.D.	1.25	10.09									
N	15	15									

N = NEGATIVE RESPONSE, Y = POSITIVE RESPONSE
PND= POSTNATAL DAY

TABLE 15
PUBERTAL ASSAY OF SP 7077 VARIANT (TS02044) IN JUV. FEMALE RATS
INDIVIDUAL ANIMAL DEVELOPMENTAL PARAMETERS - VAGINAL PATENCY

GROUP: 500 MG/KG/DAY SEX: FEMALES

ANIMAL	DAY OF RESPONSE	WEIGHT GRAMS	PND===> 30	31	32	33	34	35	36	37	38
20377-07	32	89.1	N	N	Y						
20378-01	30	99.3	Y								
20378-02	31	97.9	N	Y							
20378-05	33	108.0	N	N	N	Y					
20378-06	32	106.6	N	N	Y						
20379-05	32	114.7	N	N	Y						
20380-05	34	110.7	N	N	N	N	Y				
20380-06	32	100.9	N	N	Y						
20380-07	31	103.7	N	Y							
20381-03	30	80.4	Y								
20381-05	33	114.3	N	N	N	Y					
20381-06	31	100.0	N	Y							
20383-01	34	109.7	N	N	N	N	Y				
20383-04	34	114.8	N	N	N	N	Y				
20384-03	34	107.7	N	N	N	N	Y				
MEAN	32.2	103.9									
S.D.	1.42	9.69									
N	15	15									

N = NEGATIVE RESPONSE, Y = POSITIVE RESPONSE
PND= POSTNATAL DAY

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03/19/2003
R:04/24/2003

TABLE 16
PUBERTAL ASSAY OF SP 7077 VARIANT (TS02044) IN JUV. FEMALE RATS
INDIVIDUAL ESTROUS CYCLE DATA

FEMALES FROM GROUP 1: 0 MG/KG/DAY

FEMALE NUMBER	DETERMINATION DAY: 1	2	3	4	5	6	7	8	9	10	11	12	13	INDIVIDUAL MEAN LENGTH OF ESTROUS CYCLE (DAYS)
20377-06	N	N	N	N	N	E	D	D	D	P	E	D	D	5.0
20378-03	N	N	N	N	N	N	N	N	P	D	D	D	P	A
20379-01	N	N	N	E	D	D	D	E	E	D	D	P	E	5.0
20380-09	N	N	D	D	D	P	E	D	D	D	P	E	D	5.0
20380-10	N	N	N	D	E	D	D	D	P	E	D	D	D	5.0
20381-01	N	N	E	D	D	D	D	P	E	E	D	D	D	7.0
20381-04	N	N	N	E	D	D	D	D	D	D	D	D	E	A
20381-08	N	N	N	N	E	D	D	D	P	E	D	D	D	5.0
20381-09	N	N	N	N	E	D	D	D	D	P	E	D	D	6.0
20383-05	N	N	N	N	N	D	D	D	D	E	D	D	D	A
20383-06	N	N	N	N	D	D	E	E	D	D	D	E	E	A
20384-02	N	N	N	N	N	D	D	P	E	D	D	D	E	A
20384-04	N	N	N	N	N	D	D	P	E	D	D	D	D	A
20384-07	N	N	N	N	E	D	D	D	P	E	D	D	D	5.0
20384-08	N	N	N	N	N	N	N	E	D	D	D	P	E	A
													MEAN	5.4
													S.D.	0.74
													N	8

ESTROUS STAGE CODE: E = ESTRUS, D = DIESTRUS, M = METESTRUS, P = PROESTRUS
A = UNABLE TO DETERMINE LENGTH OF ESTROUS CYCLE
N = NOT ENTERED

TABLE 16
PUBERTAL ASSAY OF SP 7077 VARIANT (TS02044) IN JUV. FEMALE RATS
INDIVIDUAL ESTROUS CYCLE DATA

FEMALES FROM GROUP 2: 50 MG/KG/DAY

FEMALE NUMBER	DETERMINATION DAY: 1	2	3	4	5	6	7	8	9	10	11	12	13	INDIVIDUAL MEAN LENGTH OF ESTROUS CYCLE (DAYS)
20377-05	N	N	N	N	N	E	D	D	D	D	P	E	D	6.0
20378-04	N	N	N	N	E	D	N	D	D	D	E	D	D	A
20378-09	N	N	N	N	N	N	E	D	D	D	D	D	E	A
20378-11	N	N	N	N	D	D	D	D	P	E	E	D	D	A
20379-03	N	N	N	N	E	D	D	D	D	E	D	D	D	5.0
20379-09	N	N	N	N	N	D	D	P	E	D	D	D	E	A
20379-11	N	N	N	N	N	N	N	N	D	D	P	E	D	A
20380-02	N	N	N	N	N	E	D	D	D	D	E	D	D	5.0
20380-03	N	N	N	N	D	D	D	D	E	D	D	D	E	A
20381-02	N	N	N	N	N	N	E	D	D	D	D	E	D	5.0
20381-10	N	N	N	N	N	N	N	E	E	D	D	D	D	A
20381-11	N	N	N	N	N	D	E	D	D	D	P	E	D	5.0
20383-02	N	N	N	N	E	D	D	D	D	D	D	D	D	A
20383-03	N	N	N	N	D	D	D	P	E	D	D	D	D	A
20384-06	N	N	N	N	N	N	E	D	D	D	P	E	D	5.0
													MEAN	5.2
													S.D.	0.41
													N	6

ESTROUS STAGE CODE: E = ESTRUS, D = DIESTRUS, M = METESTRUS, P = PROESTRUS
A = UNABLE TO DETERMINE LENGTH OF ESTROUS CYCLE
N = NOT ENTERED

TABLE 16
PUBERTAL ASSAY OF SP 7077 VARIANT (TS02044) IN JUV. FEMALE RATS
INDIVIDUAL ESTROUS CYCLE DATA

FEMALES FROM GROUP 3: 150 MG/KG/DAY

FEMALE NUMBER	DETERMINATION DAY: 1	2	3	4	5	6	7	8	9	10	11	12	13	INDIVIDUAL MEAN LENGTH OF ESTROUS CYCLE (DAYS)
20377-03	N	N	N	N	D	E	D	D	D	D	E	D	D	5.0
20378-07	N	N	N	N	D	D	D	D	P	E				A
20379-02	N	N	N	N	D	D	D	D	D	D	D	D	D	A
20379-04	N	N	N	N	D	E	D	D	D	D	D	D	D	A
20380-04	N	N	D	E	D	D	D	D	P	E	D	D	D	6.0
20380-08	N	N	E	D	D	N								A
20381-07	N	N	N	E	D	D	D	P	E	D	D	D	E	5.0
20383-07	N	N	N	E	D	D	D	D	E	E	D	D	D	6.0
20383-08	N	N	P	E	D	N								A
20383-09	N	N	N	N	D	D	D	P	M	D	D	D	D	A
20383-10	N	N	N	N	D	D	D	D	D	D				A
20384-01	N	N	N	N	N	D	D	E	D	D	D	P	E	A
20384-05	N	D	D	D	D	D	P	E	D	D	D	D	D	A
20384-09	N	N	N	N	N	D	D	E	D	D	D	D	E	A
20384-10	N	N	N	N	N	D	D	D	D	E	D	D	D	A
MEAN														5.5
S.D.														0.58
N														4

ESTROUS STAGE CODE: E = ESTRUS, D = DIESTRUS, M = METESTRUS, P = PROESTRUS
A = UNABLE TO DETERMINE LENGTH OF ESTROUS CYCLE
N = NOT ENTERED

TABLE 16
PUBERTAL ASSAY OF SP 7077 VARIANT (TS02044) IN JUV. FEMALE RATS
INDIVIDUAL ESTROUS CYCLE DATA

FEMALES FROM GROUP 4: 500 MG/KG/DAY

FEMALE NUMBER	DETERMINATION DAY: 1	2	3	4	5	6	7	8	9	10	11	12	13	INDIVIDUAL MEAN LENGTH OF ESTROUS CYCLE (DAYS)
20377-07	N	N	D	D	D	D	D	D	D	E	M	D	D	A
20378-01	D	N	E	D	D	D	P	E	D	D	D	P	E	5.0
20378-02	N	D	E	E	D	D	D	D	D	P	E	D	D	7.0
20378-05	N	N	N	D	D	D	D	D	P	E	D	D	D	A
20378-06	N	N	E	D	D	D	D	D	D	E	D	D	D	7.0
20379-05	N	N	D	D	E	D	D	D	D	D	P	E	D	7.0
20380-05	N	N	N	N	E	E	D	D	D	E	E	D	D	5.0
20380-06	N	N	E	D	D	D								A
20380-07	N	D	D	D	E	D	D	D	D	P	E	D	D	6.0
20381-03	M	N	E	E	D	D	D	D	D	E	E	D	D	7.0
20381-05	N	N	N	P	E	D	D	D	D	D	P	D	D	6.0
20381-06	N	E	E	D	D	D	D	E	E	D	D	D	P	6.0
20383-01	N	N	N	N	D	P	E	D	D	P	E	E	D	5.0
20383-04	N	N	N	N	D	D	D	D	D	D	D	D	D	A
20384-03	N	N	N	N	D	D	D	D	D	P	E	D	D	A
MEAN														6.1
S.D.														0.88
N														10

ESTROUS STAGE CODE: E = ESTRUS, D = DIESTRUS, M = METESTRUS, P = PROESTRUS
A = UNABLE TO DETERMINE LENGTH OF ESTROUS CYCLE
N = NOT ENTERED

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03/19/2003
R:04/24/2003

TABLE 17 (UNSCHEDULED DEATHS)
PUBERTAL ASSAY OF SP 7077 VARIANT (TS02044) IN JUV. FEMALE RATS
INDIVIDUAL MACROSCOPIC FINDINGS

ANIMAL NO.20378-07 GROUP 3: 150 MG/KG/DAY FEMALE FOUND DEAD 03/07/03 DATE OF DEATH: 03/07/03 STUDY DAY: 17

					GRADE
NO SIGNIFICANT CHANGES OBSERVED	GROSS:	ADRENAL GLANDS	BRAIN	ESOPHAGUS	EYES
		HEART	INTESTINE	KIDNEYS	LIVER
		LYMPH NODE, MES	LUNGS	MAMMARY GLAND	OVIDUCTS
		OVARIES	PANCREAS	PITUITARY	SPINAL CORD
		SAL. GLAND MAND	SKIN	SPLEEN	STOMACH
		THYMUS	THYROID GLANDS	TRACHEA	URINARY BLADDER
		UTERUS	CERVIX		

GROSS GRADE CODE: 1-SLIGHT, 2-MODERATE, 3-MARKED, P-PRESENT

TABLE 17 (UNSCHEDULED DEATHS)
PUBERTAL ASSAY OF SP 7077 VARIANT (TS02044) IN JUV. FEMALE RATS
INDIVIDUAL MACROSCOPIC FINDINGS

ANIMAL NO.20380-08 GROUP 3: 150 MG/KG/DAY FEMALE FOUND DEAD 03/03/03 DATE OF DEATH: 03/03/03 STUDY DAY: 13

		GRADE
GENERAL COMMENT	GROSS: CANNIBALIZED ALL VENTRAL NECK VISCERA	P
NO SIGNIFICANT CHANGES OBSERVED	GROSS: ADRENAL GLANDS, BRAIN, ESOPHAGUS, EYES, HEART, INTESTINE, KIDNEYS, LIVER, LYMPH NODE, MES, LUNGS, MAMMARY GLAND, OVIDUCTS, OVARIES, PANCREAS, PITUITARY, SPINAL CORD, SAL. GLAND MAND, SKIN, SPLEEN, STOMACH, THYMUS, THYROID GLANDS, TRACHEA, URINARY BLADDER, UTERUS, CERVIX	

GROSS GRADE CODE: 1-SLIGHT, 2-MODERATE, 3-MARKED, P-PRESENT

TABLE 17 (UNSCHEDULED DEATHS)
PUBERTAL ASSAY OF SP 7077 VARIANT (TS02044) IN JUV. FEMALE RATS
INDIVIDUAL MACROSCOPIC FINDINGS

ANIMAL NO.20383-08 GROUP 3: 150 MG/KG/DAY FEMALE FOUND DEAD 03/03/03 DATE OF DEATH: 03/03/03 STUDY DAY: 13

		GRADE
GENERAL COMMENT	GROSS: CANNIBALIZED ALL ABDOMINAL VISCERA; DIAPHRAGM; LUNGS, ALL LOBES; HINDLIMB, LEFT	P
NO SIGNIFICANT CHANGES OBSERVED	GROSS: ADRENAL GLANDS, BRAIN, ESOPHAGUS, EYES, HEART, INTESTINE, KIDNEYS, LIVER, LYMPH NODE, MES, LUNGS, MAMMARY GLAND, OVIDUCTS, OVARIES, PANCREAS, PITUITARY, SPINAL CORD, SAL. GLAND MAND, SKIN, SPLEEN, STOMACH, THYMUS, THYROID GLANDS, TRACHEA, URINARY BLADDER, UTERUS, CERVIX	

GROSS GRADE CODE: 1-SLIGHT, 2-MODERATE, 3-MARKED, P-PRESENT

TABLE 17 (UNSCHEDULED DEATHS)
PUBERTAL ASSAY OF SP 7077 VARIANT (TS02044) IN JUV. FEMALE RATS
INDIVIDUAL MACROSCOPIC FINDINGS

ANIMAL NO.20383-10 GROUP 3: 150 MG/KG/DAY FEMALE FOUND DEAD 03/07/03 DATE OF DEATH: 03/07/03 STUDY DAY: 17

		GRADE
LUNGS	GROSS: DISCOLORATION, DARK RED ALL LOBES	P
NO SIGNIFICANT CHANGES OBSERVED	GROSS: ADRENAL GLANDS, BRAIN, ESOPHAGUS, EYES, HEART, INTESTINE, KIDNEYS, LIVER, LYMPH NODE, MES, MAMMARY GLAND, OVIDUCTS, OVARIES, PANCREAS, PITUITARY, SPINAL CORD, SAL. GLAND MAND, SKIN, SPLEEN, STOMACH, THYMUS, THYROID GLANDS, TRACHEA, URINARY BLADDER, UTERUS, CERVIX	

GROSS GRADE CODE: 1-SLIGHT, 2-MODERATE, 3-MARKED, P-PRESENT

TABLE 17 (UNSCHEDULED DEATHS)
PUBERTAL ASSAY OF SP 7077 VARIANT (TS02044) IN JUV. FEMALE RATS
INDIVIDUAL MACROSCOPIC FINDINGS

ANIMAL NO.20380-06 GROUP 4: 500 MG/KG/DAY FEMALE FOUND DEAD 03/03/03 DATE OF DEATH: 03/03/03 STUDY DAY: 13

		GRADE
LUNGS	GROSS: AREA(S), DARK RED MULTIPLE, IRREGULARLY SHAPED, ALL LOBES	P
NO SIGNIFICANT CHANGES OBSERVED	GROSS: ADRENAL GLANDS, BRAIN, ESOPHAGUS, EYES, HEART, INTESTINE, KIDNEYS, LIVER, LYMPH NODE, MES, MAMMARY GLAND, OVIDUCTS, OVARIES, PANCREAS, PITUITARY, SPINAL CORD, SAL. GLAND MAND, SKIN, SPLEEN, STOMACH, THYMUS, THYROID GLANDS, TRACHEA, URINARY BLADDER, UTERUS, CERVIX	

GROSS GRADE CODE: 1-SLIGHT, 2-MODERATE, 3-MARKED, P-PRESENT

PGRHv4.41
03/19/2003

TABLE 18
PUBERTAL ASSAY OF SP 7077 VARIANT (TS02044) IN JUV. FEMALE RATS
INDIVIDUAL ORGAN WEIGHTS AND FINAL BODY WEIGHTS [G]

FEMALE GROUP: 0 MG/KG/DAY

ANIMAL	FBW(G)	UTERUS - WET	UTERUS - BLOT.	LUMINAL FLUID	LIVER	OVARIES	ADRENAL GLANDS	PITU ITARY
20377-06	157.	0.2985	0.2789	0.0196	8.25	0.0852	0.0438	0.0085
20378-03	162.	0.4963	0.3280	0.1683	7.35	0.0705	0.0354	0.0063
20379-01	134.	0.3459	0.3281	0.0178	6.19	0.0893	0.0430	0.0072
20380-09	164.	0.2848	0.2612	0.0236	7.96	0.0808	0.0417	0.0087
20380-10	152.	0.5427	0.4161	0.2366	7.62	0.0858	0.0370	0.0095
20381-01	146.	0.3863	0.3374	0.0489	7.00	0.0741	0.0366	0.0080
20381-04	151.	0.3709	0.3511	0.0198	7.50	0.1055	0.0340	0.0086
20381-08	151.	0.4401	0.4087	0.0314	7.44	0.0786	0.0306	0.0067
20381-09	145.	0.2956	0.2740	0.0216	6.17	0.0657	0.0347	0.0060
20383-05	146.	0.3644	0.3396	0.0248	6.80	0.0871	0.0305	0.0086
20383-06	140.	0.3586	0.3382	0.0204	6.90	0.1226	0.0455	0.0087
20384-02	164.	0.6937	0.4557	0.2380	6.97	0.0809	0.0493	0.0093
20384-04	157.	0.9170	0.5429	0.3741	7.25	0.0903	0.0445	0.0090
20384-07	161.	0.4937	0.4578	0.0359	7.61	0.0882	0.0441	0.0094
20384-08	152.	0.3121	0.2980	0.0141	6.41	0.0818	0.0423	0.0086
MEAN	152.	0.4400	0.3610	0.0863	7.16	0.0858	0.0395	0.0082
S.D.	8.9	0.17293	0.07963	0.11248	0.611	0.01382	0.00577	0.00113
N	15	15	15	15	15	15	15	15

FBW = FINAL BODY WEIGHT
LUMINAL FLUID WEIGHT = WET UTERUS WEIGHT MINUS BLOTTED UTERUS WEIGHT

TABLE 18
PUBERTAL ASSAY OF SP 7077 VARIANT (TS02044) IN JUV. FEMALE RATS
INDIVIDUAL ORGAN WEIGHTS AND FINAL BODY WEIGHTS [G]

FEMALE GROUP: 50 MG/KG/DAY

ANIMAL	FBW(G)	UTERUS - WET	UTERUS - BLOT.	LUMINAL FLUID	LIVER	OVARIES	ADRENAL GLANDS	PITU ITARY
20377-05	135.	0.1897	0.1813	0.0084	7.36	0.0894	0.0418	0.0071
20378-04	159.	0.2989	0.2795	0.0194	8.28	0.0784	0.0400	0.0068
20378-09	159.	0.3674	0.3339	0.0335	8.71	0.1039	0.0471	0.0092
20378-11	157.	0.2643	0.2463	0.0180	8.11	0.0979	0.0454	0.0075
20379-03	159.	0.4304	0.3955	0.0349	8.14	0.0809	0.0415	0.0091
20379-09	192.	0.8243	0.4997	0.3246	10.08	0.0905	0.0459	0.0088
20379-11	171.	0.2186	0.2028	0.0158	9.16	0.0874	0.0422	0.0092
20380-02	159.	0.2440	0.2291	0.0149	7.11	0.0658	0.0360	0.0075
20380-03	170.	0.4046	0.3886	0.0160	9.08	0.1149	0.0487	0.0112
20381-02	151.	0.2474	0.2295	0.0179	7.37	0.0916	0.0328	0.0086
20381-10	147.	0.3616	0.3012	0.0604	6.76	0.0733	0.0365	0.0074
20381-11	172.	0.2756	0.2537	0.0219	8.95	0.0895	0.0516	0.0084
20383-02	158.	0.2573	0.2423	0.0150	7.52	0.0778	0.0388	0.0091
20383-03	131.	0.5832	0.4468	0.1354	5.52	0.0643	0.0317	0.0088
20384-06	158.	0.2582	0.2423	0.0159	6.73	0.0810	0.0379	0.0079
MEAN	159.	0.3484	0.2982	0.0501	7.93	0.0858	0.0412	0.0084
S.D.	14.9	0.16614	0.09454	0.08227	1.177	0.01360	0.00578	0.00112
N	15	15	15	15	15	15	15	15

FBW = FINAL BODY WEIGHT
LUMINAL FLUID WEIGHT = WET UTERUS WEIGHT MINUS BLOTTED UTERUS WEIGHT

TABLE 18
PUBERTAL ASSAY OF SP 7077 VARIANT (TS02044) IN JUV. FEMALE RATS
INDIVIDUAL ORGAN WEIGHTS AND FINAL BODY WEIGHTS [G]

FEMALE GROUP: 150 MG/KG/DAY

ANIMAL	FBW(G)	UTERUS - WET	UTERUS - BLOT.	LUMINAL FLUID	LIVER	OVARIES	ADRENAL GLANDS	PITU ITARY
20377-03	141.	0.2229	0.2102	0.0127	7.93	0.0608	0.0352	0.0074
20379-02	188.	0.2934	0.2693	0.0241	11.00	0.0752	0.0401	0.0087
20379-04	179.	0.2655	0.2492	0.0163	10.20	0.0805	0.0460	0.0091
20380-04	164.	0.3092	0.2897	0.0195	8.17	0.1010	0.0546	0.0095
20381-07	159.	0.9937	0.4736	0.5201	8.25	0.0715	0.0401	0.0080
20383-07	148.	0.3920	0.3698	0.0222	7.69	0.0875	0.0356	0.0088
20383-09	151.	0.2739	0.2551	0.0188	7.88	0.0882	0.0346	0.0092
20384-01	142.	0.2867	0.2735	0.0132	6.67	0.0711	0.0412	0.0091
20384-05	140.	0.4135	0.3900	0.0235	5.44	0.0557	0.0407	0.0064
20384-09	152.	0.7063	0.3714	0.3349	7.16	0.0613	0.0367	0.0083
20384-10	158.	0.6465	0.4803	0.1662	7.09	0.0686	0.0602	0.0086
MEAN	157.	0.4367	0.3302	0.1065	7.95	0.0747	0.0423	0.0085
S.D.	15.5	0.24296	0.09225	0.16985	1.545	0.01366	0.00828	0.00091
N	11	11	11	11	11	11	11	11

FBW = FINAL BODY WEIGHT
LUMINAL FLUID WEIGHT = WET UTERUS WEIGHT MINUS BLOTTED UTERUS WEIGHT

TABLE 18
PUBERTAL ASSAY OF SP 7077 VARIANT (TS02044) IN JUV. FEMALE RATS
INDIVIDUAL ORGAN WEIGHTS AND FINAL BODY WEIGHTS [G]

FEMALE GROUP: 500 MG/KG/DAY

ANIMAL	FBW(G)	UTERUS - WET	UTERUS - BLOT.	LUMINAL FLUID	LIVER	OVARIES	ADRENAL GLANDS	PITU ITARY
20377-07	139.	0.1647	0.1542	0.0105	8.47	0.0402	0.0346	0.0070
20378-01	158.	0.2986	0.2822	0.0164	9.66	0.0912	0.0510	0.0080
20378-02	147.	0.2288	0.2170	0.0118	9.70	0.0714	0.0384	0.0079
20378-05	147.	0.3410	0.3164	0.0246	8.31	0.0700	0.0540	0.0069
20378-06	155.	0.2216	0.2072	0.0144	9.00	0.0698	0.0454	0.0076
20379-05	163.	0.2753	0.2589	0.0164	9.70	0.0732	0.0477	0.0082
20380-05	148.	0.2626	0.2472	0.0154	7.78	0.0785	0.0369	0.0081
20380-07	168.	0.2528	0.2355	0.0173	9.77	0.0619	0.0402	0.0074
20381-03	143.	0.1981	0.1868	0.0113	7.49	0.0561	0.0374	0.0059
20381-05	161.	0.2695	0.2518	0.0177	8.14	0.0628	0.0478	0.0068
20381-06	158.	0.8130	0.4401	0.3729	8.98	0.0748	0.0509	0.0098
20383-01	147.	0.2606	0.2448	0.0158	7.19	0.0831	0.0376	0.0084
20383-04	151.	0.2836	0.2692	0.0144	8.35	0.0618	0.0385	0.0077
20384-03	138.	0.2264	0.2104	0.0160	6.27	0.0484	0.0429	0.0057
MEAN	152.	0.2926	0.2516	0.0411	8.49	0.0674	0.0431	0.0075
S.D.	9.1	0.15601	0.06788	0.09557	1.065	0.01349	0.00630	0.00105
N	14	14	14	14	14	14	14	14

FBW = FINAL BODY WEIGHT
LUMINAL FLUID WEIGHT = WET UTERUS WEIGHT MINUS BLOTTED UTERUS WEIGHT

POFBWv4.12
03/19/2003
R:04/23/2003

TABLE 19
PUBERTAL ASSAY OF SP 7077 VARIANT (TS02044) IN JUV. FEMALE RATS
INDIVIDUAL ORGAN WTS. RELATIVE TO FINAL BODY WTS. [G/100 G]

FEMALE GROUP: 0 MG/KG/DAY

ANIMAL	FBW(G)	UTERUS - WET	UTERUS - BLOT.	LIVER	OVARIES	ADRENAL GLANDS	PITU ITARY
20377-06	157.	0.190	0.178	5.255	0.054	0.028	0.005
20378-03	162.	0.306	0.202	4.537	0.044	0.022	0.004
20379-01	134.	0.258	0.245	4.619	0.067	0.032	0.005
20380-09	164.	0.174	0.159	4.854	0.049	0.025	0.005
20380-10	152.	0.357	0.274	5.013	0.056	0.024	0.006
20381-01	146.	0.265	0.231	4.795	0.051	0.025	0.005
20381-04	151.	0.246	0.233	4.967	0.070	0.023	0.006
20381-08	151.	0.291	0.271	4.927	0.052	0.020	0.004
20381-09	145.	0.204	0.189	4.255	0.045	0.024	0.004
20383-05	146.	0.250	0.233	4.658	0.060	0.021	0.006
20383-06	140.	0.256	0.242	4.929	0.088	0.033	0.006
20384-02	164.	0.423	0.278	4.250	0.049	0.030	0.006
20384-04	157.	0.584	0.346	4.618	0.058	0.028	0.006
20384-07	161.	0.307	0.284	4.727	0.055	0.027	0.006
20384-08	152.	0.205	0.196	4.217	0.054	0.028	0.006
MEAN	152.	0.288	0.237	4.708	0.057	0.026	0.005
S.D.	8.9	0.1047	0.0487	0.3035	0.0112	0.0039	0.0008
N	15	15	15	15	15	15	15

FBW = FINAL BODY WEIGHT

TABLE 19
PUBERTAL ASSAY OF SP 7077 VARIANT (TS02044) IN JUV. FEMALE RATS
INDIVIDUAL ORGAN WTS. RELATIVE TO FINAL BODY WTS. [G/100 G]

FEMALE GROUP: 50 MG/KG/DAY

ANIMAL	FBW(G)	UTERUS - WET	UTERUS - BLOT.	LIVER	OVARIES	ADRENAL GLANDS	PITU ITARY
20377-05	135.	0.141	0.134	5.452	0.066	0.031	0.005
20378-04	159.	0.188	0.176	5.208	0.049	0.025	0.004
20378-09	159.	0.231	0.210	5.478	0.065	0.030	0.006
20378-11	157.	0.168	0.157	5.166	0.062	0.029	0.005
20379-03	159.	0.271	0.249	5.119	0.051	0.026	0.006
20379-09	192.	0.429	0.260	5.250	0.047	0.024	0.005
20379-11	171.	0.128	0.119	5.357	0.051	0.025	0.005
20380-02	159.	0.153	0.144	4.472	0.041	0.023	0.005
20380-03	170.	0.238	0.229	5.341	0.068	0.029	0.007
20381-02	151.	0.164	0.152	4.881	0.061	0.022	0.006
20381-10	147.	0.246	0.205	4.599	0.050	0.025	0.005
20381-11	172.	0.160	0.148	5.203	0.052	0.030	0.005
20383-02	158.	0.163	0.153	4.759	0.049	0.025	0.006
20383-03	131.	0.445	0.341	4.214	0.049	0.024	0.007
20384-06	158.	0.163	0.153	4.259	0.051	0.024	0.005
MEAN	159.	0.219	0.189	4.984	0.054	0.026	0.005
S.D.	14.9	0.0979	0.0603	0.4259	0.0081	0.0029	0.0008
N	15	15	15	15	15	15	15

FBW = FINAL BODY WEIGHT

TABLE 19
PUBERTAL ASSAY OF SP 7077 VARIANT (TS02044) IN JUV. FEMALE RATS
INDIVIDUAL ORGAN WTS. RELATIVE TO FINAL BODY WTS. [G/100 G]

FEMALE GROUP: 150 MG/KG/DAY

ANIMAL	FBW(G)	UTERUS - WET	UTERUS - BLOT.	LIVER	OVARIES	ADRENAL GLANDS	PITU ITARY
20377-03	141.	0.158	0.149	5.624	0.043	0.025	0.005
20379-02	188.	0.156	0.143	5.851	0.040	0.021	0.005
20379-04	179.	0.148	0.139	5.698	0.045	0.026	0.005
20380-04	164.	0.189	0.177	4.982	0.062	0.033	0.006
20381-07	159.	0.625	0.298	5.189	0.045	0.025	0.005
20383-07	148.	0.265	0.250	5.196	0.059	0.024	0.006
20383-09	151.	0.181	0.169	5.219	0.058	0.023	0.006
20384-01	142.	0.202	0.193	4.697	0.050	0.029	0.006
20384-05	140.	0.295	0.279	3.886	0.040	0.029	0.005
20384-09	152.	0.465	0.244	4.711	0.040	0.024	0.005
20384-10	158.	0.409	0.304	4.487	0.043	0.038	0.005
MEAN	157.	0.281	0.213	5.049	0.048	0.027	0.005
S.D.	15.5	0.1556	0.0635	0.5810	0.0082	0.0049	0.0005
N	11	11	11	11	11	11	11

FBW = FINAL BODY WEIGHT

TABLE 19
PUBERTAL ASSAY OF SP 7077 VARIANT (TS02044) IN JUV. FEMALE RATS
INDIVIDUAL ORGAN WTS. RELATIVE TO FINAL BODY WTS. [G/100 G]

FEMALE GROUP: 500 MG/KG/DAY

ANIMAL	FBW(G)	UTERUS - WET	UTERUS - BLOT.	LIVER	OVARIES	ADRENAL GLANDS	PITU ITARY
20377-07	139.	0.118	0.111	6.094	0.029	0.025	0.005
20378-01	158.	0.189	0.179	6.114	0.058	0.032	0.005
20378-02	147.	0.156	0.148	6.599	0.049	0.026	0.005
20378-05	147.	0.232	0.215	5.653	0.048	0.037	0.005
20378-06	155.	0.143	0.134	5.806	0.045	0.029	0.005
20379-05	163.	0.169	0.159	5.951	0.045	0.029	0.005
20380-05	148.	0.177	0.167	5.257	0.053	0.025	0.005
20380-07	168.	0.150	0.140	5.815	0.037	0.024	0.004
20381-03	143.	0.139	0.131	5.238	0.039	0.026	0.004
20381-05	161.	0.167	0.156	5.056	0.039	0.030	0.004
20381-06	158.	0.515	0.279	5.684	0.047	0.032	0.006
20383-01	147.	0.177	0.167	4.891	0.057	0.026	0.006
20383-04	151.	0.188	0.178	5.530	0.041	0.025	0.005
20384-03	138.	0.164	0.152	4.543	0.035	0.031	0.004
MEAN	152.	0.192	0.165	5.588	0.044	0.028	0.005
S.D.	9.1	0.0969	0.0412	0.5474	0.0084	0.0037	0.0007
N	14	14	14	14	14	14	14

FBW = FINAL BODY WEIGHT

POFBWv4.12
03/19/2003
R:03/25/2003

APPENDIX A

Certificate of Analysis (Sponsor-Provided Data)

Test Substance Certificate

Test Substance
TS01010, TS02044, TS02045 and TS02046

Lot #
TS01010, TS02044, TS02045 and TS02046

Purity
100%

Physical Description
Dark brown viscous liquid

Storage Conditions
Ambient

Expiration Date
1 November 2003

Additional Comments
Can be heated to 60°C to facilitate sampling.

APPENDIX B

Analytical Chemistry Report (Sponsor-Provided Data)

TITLE
The Analytical Report in Support of a Female Pubertal Assay of SP 7077 Variant (TS02044) Administered Orally in Juvenile Female Rats

SUBMITTED TO SUPPORT THE TESTING OF:
SP 7077 Variant, TS02044

STUDY INITIATION DATE
31 January 2003

ANALYTICAL START DATE
7 February 2003

ANALYTICAL END DATE
18 March 2003

ANALYTICAL STUDY COMPLETION DATE
16 May 2003

TOTAL PAGES
12

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ANALYTICAL STUDY GLP COMPLIANCE STATEMENT

All analytical tests performed by Integrated Laboratory Technologies for [ ] were conducted in compliance with current EPA Good Laboratory Practice (GLP) standards as described by the Toxic Substances Control Act (TSCA) 40 CFR Part 792, and the revised Organization for Economic Cooperation and Development (OECD) Principles of GLP, ENV/MC/CHEM(98)17.

ANALYTICAL STUDY QUALITY ASSURANCE UNIT STATEMENT

The analytical raw data and final report for the

The report appears to accurately describe the methods and Standard Operating Procedures (SOPs) used in the study. The reported results accurately reflect the raw data of the study.

Study #

Study Title
The Analytical Report in Support of a Female Pubertal Assay of SP 7077 Variant (TS02044) Administered Orally in Juvenile Female Rats

	Study Director		
Study In-progress Inspection 6 March 03	24 March 03	24 March 03	21 March 03
Analytical Draft Report Review 7, 13 May 03	16 May 03	16 May 03	16 May 03
Analytical Final Report Review 16 May 03	16 May 03	16 May 03	16 May 03

ABSTRACT

Samples of suspensions (TS02044 in corn oil) used in a female pubertal assay in rats.

concentrations. A direct dilution procedure was employed to prepare the samples for elemental analysis by Inductively Coupled Plasma-Atomic Emission Spectroscopy (ICP-AES). Homogeneity and stability of TS02044 in corn oil were established. The nominal concentrations of all dosing suspensions were verified by the analytical data.

TEST SUBSTANCE

The test substance used in the preparation of the dosing suspensions is identified as a SP 7077 variant by the Sponsor but will be referred to by its lot number of TS02044 throughout this report. The CAS number is confidential; contac urther information. The test substance was characterized and its stability was established prior to the initiation of the study. The test substance was also determined to be stable (±15% of the expected value) at the test site ver the course of the toxicology study as demonstrated on page 8.

INTRODUCTION

The purpose of this analytical study was the determination and verification of TS02044 homogeneity, stability, and concentration in corn oil. The concentration study samples were aliquots taken from mixtures prepared as dosing suspensions for a female pubertal assay in rats as outlined in the protocol fo

The analytical portion of the study was performed by the Elemental Analysis Team in the

end dates were 7 February 2003 and 18 March 2003 respectively.

EXPERIMENTAL

SAMPLES
Samples were shipped from Samples were stored at room temperature and in the dark prior to analysis.

The first batch of samples was transferred to the laboratory on 7 February 2003 and analyzed on 11 February 2003. The analysis of the last sample was completed on 14 March 2003. The density of the corn oil vehicle was determined on 18 March 2003.

STANDARDS
Calibration standards for the ICP-AES were made from certified commercially prepared elemental concentrates (Conostan Division of Conoco, Inc.). Standard preparation data is archived by

ANALYTICAL METHOD
Samples were prepared as stated in [illegible] Test Code 30157, SOP ME-007 "Direct Dilution Method to Verify Concentrations of Additives Dissolved in Solvent Vehicles," and analyzed following the procedure outlined in SOP EQ-114 "Model 3560 Inductively Coupled Plasma Spectrometer."

The approach employed in this method was to verify concentration based on the known elemental composition of TS02044. Aliquots of the dosing suspensions were diluted in an o-xylene diluent and the elemental composition was determined by ICP-AES. The calcium concentration of the samples was then used to ascertain the concentration of TS02044 in the dosing suspensions.

DISCUSSION

DETERMINATION OF THE METHOD DETECTION LIMIT
The method detection limit (MDL) was determined following the procedure outlined in 40 CFR 136 Appendix B. The procedure required seven measurements of a standard. The mean, standard deviation, and variance of the replicates were used in the computation of the MDL. The MDL for calcium was calculated to be 0.007 weight (wt) ppm. A reporting limit of 0.7 wt ppm is used for vehicle sample results.

SAMPLE ANALYSIS
The analytical results for the suspensions of TS02044 in corn oil are summarized in the tables located on pages 9-12. Nine calibration standards were analyzed to generate a second order fit with inverse concentration-squared weighting. All instrument control checks were within acceptable limits. Known amounts of calcium were spiked into 14 samples throughout the duration of the study and gave acceptable percent recoveries of 96 to 103%.

The dosing suspensions were analyzed for calcium, an element present in known concentrations in the test substance, TS02044. Dosing suspension estimates of weight percent calcium were derived by the following formula:

$$Wt\%\ Ca = \left[\frac{x}{x + \left(D_1 - \frac{xD_2}{D_1} \right)} \right] \%\ Ca\ in\ TS02044$$

where x is the solute test substance concentration in mg/µL; D_1 is the test substance density (1.0010 g/mL); and D_2 is the vehicle or solvent density (corn oil, 0.9190 g/mL). The concentration of calcium in TS02044 is 5.42 wt%. The measured results of calcium were obtained by ICP-AES, converted to wt% from ppm by multiplying by 10^{-4}, and then compared against the theoretical values.

Homogeneity was confirmed if the percent differences between the overall dose level mean and individual strata means were 10% or less. Stability and concentration data were evaluated using percent difference. The acceptable tolerance was 15%. Duplicate analyses were compared using the Contract Laboratories Program (CLP) Guidelines for Inorganic Analyses relative percent difference limit of 20%.

RESULTS AND CONCLUSIONS

The confirmation of dosing suspension homogeneity is supported by the data presented on page 9. The percent difference of all strata means with their respective overall mean is well below the 10% tolerance.

The stability of TS02044 in corn oil is established on page 10. The percent difference between the estimated and measured concentrations is less than 15% for all dosing levels.

The Summary of Analytical Results for the Concentration Study is found on page 11. The nominal concentrations of all dosing suspensions were verified by the analytical data. The percent difference between the estimated and measured concentrations is less than 15% for all dosing levels.

The table on page 12 presents the duplicate precision data. The agreement between the duplicates is excellent and well under the CLP guideline tolerance of 20%.

ARCHIVES

SAMPLES
The unused portion of all samples shall be stored in [ ] for a minimum of one year after the final analytical report is issued.

RAW DATA
Calibration data; and instrument, chemical, and standard logbook documentation shall be archived by [ ] All other raw data shall be archived in the Analytical Study File in [ ]

FINAL REPORT
A copy of the final report shall be archived with the Analytical Study File in [ ]

PROTOCOL AND SOP DEVIATIONS

There were no protocol or SOP deviations.

STUDY PERSONNEL

PRINCIPAL INVESTIGATOR	[ ]
ANALYSTS	
SUPERVISORY PERSONNEL	

SUMMARY OF ANALYTICAL RESULTS

CONCENTRATION OF CALCIUM IN TS02044

Test Substance Stability

ILT AIMS #	Date Sampled	Date Analyzed	Estimated Concentration TS02044, mg/mL	Estimated Concentration wt% Ca	Measured Concentration, wt% Ca	Percent Difference, %
3008819	17-Feb-03	22-Feb-03	neat TS	5.42	5.37	0.9
3012958	3-Mar-03	14-Mar-03	neat TS	5.42	5.39	0.6

8

PERCENT DIFFERENCE CALCULATION
Absolute value (((Estimated Concentration-Measured Concentration)/Estimated Concentration)*100)

SUMMARY OF ANALYTICAL RESULTS

CONCENTRATION OF CALCIUM IN TS02044 SUSPENSIONS

Homogeneity Study

ILT AIMS #	Date Prepared	Date Sampled	Date Analyzed	WIL Research Sample #	WIL Research Accession #	Aliquot Phase	Estimated Concentration TS02044, mg/mL	Estimated Concentration wt% Ca	Measured Concentration, wt% Ca	Strata Mean, wt% Ca	Overall Mean, wt% Ca	Percent Difference, %
3006416	04-Feb-03	04-Feb-03	11-Feb-03	RX-187029L-0001	1	Middle	0	0.000	<0.7 wt ppm			
3006426	04-Feb-03	04-Feb-03	11-Feb-03	RX-187029L-0011	1	Middle	0	0.000	<0.7 wt ppm	<0.7 wt ppm	<0.7 wt ppm	0.0
3006417	04-Feb-03	04-Feb-03	11-Feb-03	RX-187029L-0002	1	Top	10	0.059	0.059			
3006427	04-Feb-03	04-Feb-03	11-Feb-03	RX-187029L-0012	1	Top	10	0.059	0.058	0.059		0.0
3006418	04-Feb-03	04-Feb-03	11-Feb-03	RX-187029L-0003	1	Middle	10	0.059	0.059		0.059	
3006428	04-Feb-03	04-Feb-03	11-Feb-03	RX-187029L-0013	1	Middle	10	0.059	0.058	0.059		0.0
3006419	04-Feb-03	04-Feb-03	11-Feb-03	RX-187029L-0004	1	Bottom	10	0.059	0.059			
3006429	04-Feb-03	04-Feb-03	11-Feb-03	RX-187029L-0014	1	Bottom	10	0.059	0.058	0.059		0.0
3006420	04-Feb-03	04-Feb-03	11-Feb-03	RX-187029L-0005	1	Top	30	0.176	0.167			
3006430	04-Feb-03	04-Feb-03	11-Feb-03	RX-187029L-0015	1	Top	30	0.176	0.168	0.168		1.2
3006421	04-Feb-03	04-Feb-03	11-Feb-03	RX-187029L-0006	1	Middle	30	0.176	0.171		0.170	
3006431	04-Feb-03	04-Feb-03	11-Feb-03	RX-187029L-0016	1	Middle	30	0.176	0.171	0.171		0.6
3006422	04-Feb-03	04-Feb-03	11-Feb-03	RX-187029L-0007	1	Bottom	30	0.176	0.172			
3006432	04-Feb-03	04-Feb-03	11-Feb-03	RX-187029L-0017	1	Bottom	30	0.176	0.170	0.171		0.6
3006423	04-Feb-03	04-Feb-03	11-Feb-03	RX-187029L-0008	1	Top	100	0.585	0.584			
3006433	04-Feb-03	04-Feb-03	11-Feb-03	RX-187029L-0018	1	Top	100	0.585	0.584	0.584		0.5
3006424	04-Feb-03	04-Feb-03	11-Feb-03	RX-187029L-0009	1	Middle	100	0.585	0.574		0.567	
3006434	04-Feb-03	04-Feb-03	11-Feb-03	RX-187029L-0019	1	Middle	100	0.585	0.567	0.571		0.7
3006425	04-Feb-03	04-Feb-03	11-Feb-03	RX-187029L-0010	1	Bottom	100	0.585	0.565			
3006435	04-Feb-03	04-Feb-03	11-Feb-03	RX-187029L-0020	1	Bottom	100	0.585	0.566	0.566		0.2

PERCENT DIFFERENCE CALCULATION
Absolute value (((Overall Mean-Strata Mean)/Overall Mean)*100)

SUMMARY OF ANALYTICAL RESULTS

CONCENTRATION OF CALCIUM IN TS02044 SUSPENSIONS

Stability Study

ILT AIMS #	Date Prepared	Date Sampled	Date Analyzed	WIL Research Sample #	WIL Research Accession #	Aliquot Phase	Estimated Concentration TS02044, mg/mL	Estimated Concentration wt% Ca	Measured Concentration, wt% Ca	Percent Difference, %
3006417	04-Feb-03	04-Feb-03	11-Feb-03	RX-187029L-0002	1	Top	10	0.059	0.059	0.0
3006417-Dup	04-Feb-03	04-Feb-03	21-Feb-03	RX-187029L-0002	1	Top	10	0.059	0.058	1.7
3006427	04-Feb-03	04-Feb-03	11-Feb-03	RX-187029L-0012	1	Top	10	0.059	0.058	1.7
3006427-Dup	04-Feb-03	04-Feb-03	21-Feb-03	RX-187029L-0012	1	Top	10	0.059	0.059	0.0
3006418	04-Feb-03	04-Feb-03	11-Feb-03	RX-187029L-0003	1	Middle	10	0.059	0.059	0.0
3006418-Dup	04-Feb-03	04-Feb-03	21-Feb-03	RX-187029L-0003	1	Middle	10	0.059	0.058	1.7
3006428	04-Feb-03	04-Feb-03	11-Feb-03	RX-187029L-0013	1	Middle	10	0.059	0.058	1.7
3006428-Dup	04-Feb-03	04-Feb-03	21-Feb-03	RX-187029L-0013	1	Middle	10	0.059	0.059	0.0
3006419	04-Feb-03	04-Feb-03	11-Feb-03	RX-187029L-0004	1	Bottom	10	0.059	0.059	0.0
3006419-Dup	04-Feb-03	04-Feb-03	21-Feb-03	RX-187029L-0004	1	Bottom	10	0.059	0.058	1.7
3006429	04-Feb-03	04-Feb-03	11-Feb-03	RX-187029L-0014	1	Bottom	10	0.059	0.058	1.7
3006429-Dup	04-Feb-03	04-Feb-03	21-Feb-03	RX-187029L-0014	1	Bottom	10	0.059	0.059	0.0
3006420	04-Feb-03	04-Feb-03	11-Feb-03	RX-187029L-0005	1	Top	30	0.176	0.167	5.1
3006420-Dup	04-Feb-03	04-Feb-03	21-Feb-03	RX-187029L-0005	1	Top	30	0.176	0.171	2.8
3006430	04-Feb-03	04-Feb-03	11-Feb-03	RX-187029L-0015	1	Top	30	0.176	0.168	4.5
3006430-Dup	04-Feb-03	04-Feb-03	21-Feb-03	RX-187029L-0015	1	Top	30	0.176	0.174	1.1
3006421	04-Feb-03	04-Feb-03	11-Feb-03	RX-187029L-0006	1	Middle	30	0.176	0.171	2.8
3006421-Dup	04-Feb-03	04-Feb-03	21-Feb-03	RX-187029L-0006	1	Middle	30	0.176	0.173	1.7
3006431	04-Feb-03	04-Feb-03	11-Feb-03	RX-187029L-0016	1	Middle	30	0.176	0.171	2.8
3006431-Dup	04-Feb-03	04-Feb-03	21-Feb-03	RX-187029L-0016	1	Middle	30	0.176	0.173	1.7
3006422	04-Feb-03	04-Feb-03	11-Feb-03	RX-187029L-0007	1	Bottom	30	0.176	0.172	2.3
3006422-Dup	04-Feb-03	04-Feb-03	21-Feb-03	RX-187029L-0007	1	Bottom	30	0.176	0.175	0.6
3006432	04-Feb-03	04-Feb-03	11-Feb-03	RX-187029L-0017	1	Bottom	30	0.176	0.170	3.4
3006432-Dup	04-Feb-03	04-Feb-03	21-Feb-03	RX-187029L-0017	1	Bottom	30	0.176	0.173	1.7
3006423	04-Feb-03	04-Feb-03	11-Feb-03	RX-187029L-0008	1	Top	100	0.585	0.564	3.6
3006423-Dup	04-Feb-03	04-Feb-03	21-Feb-03	RX-187029L-0008	1	Top	100	0.585	0.574	1.9
3006433	04-Feb-03	04-Feb-03	11-Feb-03	RX-187029L-0018	1	Top	100	0.585	0.564	3.6
3006433-Dup	04-Feb-03	04-Feb-03	22-Feb-03	RX-187029L-0018	1	Top	100	0.585	0.578	1.2
3006424	04-Feb-03	04-Feb-03	11-Feb-03	RX-187029L-0009	1	Middle	100	0.585	0.574	1.9
3006424-Dup	04-Feb-03	04-Feb-03	21-Feb-03	RX-187029L-0009	1	Middle	100	0.585	0.580	0.9
3006434	04-Feb-03	04-Feb-03	11-Feb-03	RX-187029L-0019	1	Middle	100	0.585	0.567	3.1
3006434-Dup	04-Feb-03	04-Feb-03	22-Feb-03	RX-187029L-0019	1	Middle	100	0.585	0.581	0.7
3006425	04-Feb-03	04-Feb-03	11-Feb-03	RX-187029L-0010	1	Bottom	100	0.585	0.565	3.4
3006425-Dup	04-Feb-03	04-Feb-03	21-Feb-03	RX-187029L-0010	1	Bottom	100	0.585	0.577	1.4
3006435	04-Feb-03	04-Feb-03	11-Feb-03	RX-187029L-0020	1	Bottom	100	0.585	0.566	3.2
3006435-Dup	04-Feb-03	04-Feb-03	22-Feb-03	RX-187029L-0020	1	Bottom	100	0.585	0.578	1.2

PERCENT DIFFERENCE CALCULATION

Absolute value (((Estimated Concentration-Measured Concentration)/Estimated Concentration)*100)

SUMMARY OF ANALYTICAL RESULTS

CONCENTRATION OF CALCIUM IN TS02044 SUSPENSIONS

Concentration Study

ILT AIMS #	Date Prepared	Date Sampled	Date Analyzed	WIL Research Sample #	WIL Research Accession #	Aliquot Phase	Estimated Concentration TS02044, mg/mL	Estimated Concentration wt% Ca	Measured Concentration, wt% Ca	Percent Difference, %
3008814	17-Feb-03	17-Feb-03	22-Feb-03	RX-187029L-0031	2	Middle	0	0.000	<0.7 wt ppm	*
3008816	17-Feb-03	17-Feb-03	22-Feb-03	RX-187029L-0032	2	Middle	10	0.059	0.060	1.7
3008817	17-Feb-03	17-Feb-03	22-Feb-03	RX-187029L-0033	2	Middle	30	0.176	0.169	4.0
3008818	17-Feb-03	17-Feb-03	22-Feb-03	RX-187029L-0034	2	Middle	100	0.585	0.561	4.1
3010657	17-Feb-03	24-Feb-03	06-Mar-03	RX-187029L-0039	3	Middle	0	0.000	<0.7 wt ppm	*
3010658	17-Feb-03	24-Feb-03	06-Mar-03	RX-187029L-0040	3	Middle	10	0.059	0.059	0.0
3010659	17-Feb-03	24-Feb-03	06-Mar-03	RX-187029L-0041	3	Middle	30	0.176	0.174	1.1
3010660	17-Feb-03	24-Feb-03	06-Mar-03	RX-187029L-0042	3	Middle	100	0.585	0.573	2.1
3010661	24-Feb-03	24-Feb-03	06-Mar-03	RX-187029L-0047	4	Middle	0	0.000	<0.7 wt ppm	*
3010662	24-Feb-03	24-Feb-03	06-Mar-03	RX-187029L-0048	4	Middle	10	0.059	0.059	0.0
3010663	24-Feb-03	24-Feb-03	06-Mar-03	RX-187029L-0049	4	Middle	30	0.176	0.176	0.0
3010664	24-Feb-03	24-Feb-03	06-Mar-03	RX-187029L-0050	4	Middle	100	0.585	0.590	0.9
3011776	24-Feb-03	03-Mar-03	10-Mar-03	RX-187029L-0055	5	Middle	0	0.000	<0.7 wt ppm	*
3011777	24-Feb-03	03-Mar-03	10-Mar-03	RX-187029L-0056	5	Middle	10	0.059	0.057	3.4
3011778	24-Feb-03	03-Mar-03	10-Mar-03	RX-187029L-0057	5	Middle	30	0.176	0.172	2.3
3011779	24-Feb-03	03-Mar-03	10-Mar-03	RX-187029L-0058	5	Middle	100	0.585	0.578	1.2
3011780	03-Mar-03	03-Mar-03	10-Mar-03	RX-187029L-0063	6	Middle	0	0.000	<0.7 wt ppm	*
3011781	03-Mar-03	03-Mar-03	10-Mar-03	RX-187029L-0064	6	Middle	10	0.059	0.061	3.4
3011782	03-Mar-03	03-Mar-03	10-Mar-03	RX-187029L-0065	6	Middle	30	0.176	0.173	1.7
3011783	03-Mar-03	03-Mar-03	10-Mar-03	RX-187029L-0066	6	Middle	100	0.585	0.583	0.3
3012954	03-Mar-03	09-Mar-03	14-Mar-03	RX-187029L-0071	7	Middle	0	0.000	<0.7 wt ppm	*
3012955	03-Mar-03	09-Mar-03	14-Mar-03	RX-187029L-0072	7	Middle	10	0.059	0.059	0.0
3012956	03-Mar-03	09-Mar-03	14-Mar-03	RX-187029L-0073	7	Middle	30	0.176	0.172	2.3
3012957	03-Mar-03	09-Mar-03	14-Mar-03	RX-187029L-0074	7	Middle	100	0.585	0.586	0.2

PERCENT DIFFERENCE CALCULATION

Absolute value (((Estimated Concentration-Measured Concentration)/Estimated Concentration)*100)

*- not a significant difference

SUMMARY OF ANALYTICAL RESULTS

CONCENTRATION OF CALCIUM IN TS02044 SUSPENSIONS

Duplicate Analysis

ILT AIMS #	Date Prepared	Date Sampled	Date Analyzed	WIL Research Sample #	WIL Research Accession #	Aliquot Phase	Estimated Concentration TS02044, mg/mL	Estimated Concentration wt% Ca	Measured Concentration, wt% Ca	Relative Percent Difference, %
3006425	04-Feb-03	04-Feb-03	11-Feb-03	RX-187029L-0010	1	Bottom	100	0.585	0.565	
3006425-Dup	04-Feb-03	04-Feb-03	11-Feb-03	RX-187029L-0010	1	Bottom	100	0.585	0.567	0.4
3006430	04-Feb-03	04-Feb-03	21-Feb-03	RX-187029L-0015	1	Top	30	0.176	0.174	
3006430-Dup	04-Feb-03	04-Feb-03	21-Feb-03	RX-187029L-0015	1	Top	30	0.176	0.172	1.2
3008817	17-Feb-03	17-Feb-03	22-Feb-03	RX-187029L-0033	2	Middle	30	0.176	0.169	
3008817-Dup	17-Feb-03	17-Feb-03	22-Feb-03	RX-187029L-0033	2	Middle	30	0.176	0.169	0.0
3010657	17-Feb-03	24-Feb-03	06-Mar-03	RX-187029L-0039	3	Middle	0	0.000	<0.7 wt ppm	
3010657-Dup	17-Feb-03	24-Feb-03	06-Mar-03	RX-187029L-0039	3	Middle	0	0.000	<0.7 wt ppm	0.0
3012954	03-Mar-03	09-Mar-03	14-Mar-03	RX-187029L-0071	7	Middle	0	0.000	<0.7 wt ppm	
3012954-Dup	03-Mar-03	09-Mar-03	14-Mar-03	RX-187029L-0071	7	Middle	0	0.000	<0.7 wt ppm	0.0

RELATIVE PERCENT DIFFERENCE CALCULATION

Absolute value (((First Measured Concentration-Duplicate Measured Concentration)/((First Measured Concentration+Duplicate Measured Concentration)/2))*100)

APPENDIX C

Animal Room Environmental Conditions

PUBERTAL ASSAY OF SP 7077 VARIANT (TS02044) IN JUV. FEMALE RATS
TEMPERATURE/HUMIDITY - DAILY SUMMARY REPORT BY STUDY

STUDY SPECIFICATIONS: 187029

DATE IN: 02/06/03 TIME IN: 11:00
DATE OUT: 03/10/03 TIME OUT: 11:00

ROOM SPECIFICATIONS: B ROOM 43
SPECIES: RAT

LOW TEMPERATURE ºF: 66.0 HIGH TEMPERATURE ºF: 76.0 LOW HUMIDITY: 30.0
LOW TEMPERATURE ºC: 18.9 HIGH TEMPERATURE ºC: 24.4 HIGH HUMIDITY: 70.0

	TEMPERATURE		HUMIDITY
DATE	MEAN (ºF)	MEAN (ºC)	MEAN (%RH)
06-Feb-03	70.6	21.5	39.1
07-Feb-03	70.8	21.6	38.6
08-Feb-03	70.8	21.5	38.1
09-Feb-03	70.9	21.6	38.9
10-Feb-03	70.8	21.6	38.6
11-Feb-03	70.8	21.5	37.7
12-Feb-03	70.7	21.5	38.0
13-Feb-03	70.8	21.5	38.4
14-Feb-03	70.8	21.6	38.2
15-Feb-03	70.7	21.5	38.0
16-Feb-03	70.8	21.6	38.3
17-Feb-03	70.8	21.5	38.3
18-Feb-03	70.7	21.5	38.1
19-Feb-03	70.7	21.5	37.8
20-Feb-03	70.7	21.5	38.1
21-Feb-03	70.8	21.6	37.6
22-Feb-03	70.8	21.6	37.9
23-Feb-03	70.7	21.5	39.0
24-Feb-03	70.8	21.5	38.5
25-Feb-03	70.6	21.5	39.0
26-Feb-03	70.9	21.6	39.4
27-Feb-03	70.9	21.6	38.4
28-Feb-03	70.8	21.6	37.5

NOTE: + = VALUE WAS GREATER THAN HIGH RANGE
- = VALUE WAS LESS THAN LOW RANGE
NOTE: MEANS REPRESENT THE MEAN OF THE DAILY VALUES

REPORT 4
VERSION 1.07
3/19/03 15:42

STUDY SPECIFICATIONS: 187029 DATE IN: 02/06/03 TIME IN: 11:00
DATE OUT: 03/10/03 TIME OUT: 11:00

ROOM SPECIFICATIONS: B ROOM 43 LOW TEMPERATURE ºF: 66.0 HIGH TEMPERATURE ºF: 76.0 LOW HUMIDITY: 30.0
SPECIES: RAT LOW TEMPERATURE ºC: 18.9 HIGH TEMPERATURE ºC: 24.4 HIGH HUMIDITY: 70.0

	TEMPERATURE		HUMIDITY
DATE	MEAN (ºF)	MEAN (ºC)	MEAN (%RH)
01-Mar-03	70.7	21.5	37.7
02-Mar-03	70.9	21.6	37.8
03-Mar-03	70.7	21.5	37.2
04-Mar-03	70.9	21.6	37.2
05-Mar-03	70.8	21.6	38.0
06-Mar-03	70.8	21.6	38.3
07-Mar-03	70.8	21.6	37.6
08-Mar-03	70.8	21.6	36.7
09-Mar-03	70.8	21.6	36.7
10-Mar-03	70.8	21.6	37.2

GRAND STATS	MEAN	MIN	MAX
TEMPERATURE ºF	70.8	70.6	70.9
TEMPERATURE ºC	21.5	21.5	21.6
HUMIDITY (%RH)	38.1	36.7	39.4
N DAYS	33		

NOTE: + = VALUE WAS GREATER THAN HIGH RANGE
- = VALUE WAS LESS THAN LOW RANGE
NOTE: MEANS REPRESENT THE MEAN OF THE DAILY VALUES

REPORT 4
VERSION 1.07
3/19/03 15:42

ROOM SPECIFICATIONS:	B ROOM 43				
SPECIES:	RAT				
LOW TEMPERATURE:	66.0	DATE IN:	02/06/03		
HIGH TEMPERATURE:	76.0	TIME IN:	11:00		
LOW HUMIDITY:	30.0	DATE OUT:	03/10/03		
HIGH HUMIDITY:	70.0	TIME OUT:	11:00	TEMPERATURE	HUMIDITY

ROOM B ROOM 43 SUMMARY

MEAN	70.8	38.1
MIN	69.8	14.4
MAX	72.0	49.6
SD	0.23	1.64
N SAMPLES	769	769
FIRST DAY	02/06/03	
LAST DAY	03/10/03	
N DAYS	33	

NOTE: TEMPERATURE UNITS = DEGREES FAHRENHEIT
HUMIDITY UNITS = % RELATIVE HUMIDITY
NOTE: MEANS REPRESENT THE MEAN OF ALL VALUES

STUDY 187029 SUMMARY

MEAN	70.8	38.1
MIN	69.8	14.4
MAX	72.0	49.6
SD	0.23	1.64
N SAMPLES	769	769
FIRST DAY	02/06/03	
LAST DAY	03/10/03	
N DAYS	33	

NOTE: TEMPERATURE UNITS = DEGREES FAHRENHEIT
HUMIDITY UNITS = % RELATIVE HUMIDITY
NOTE: MEANS REPRESENT THE MEAN OF ALL VALUES

APPENDIX D

Reproductive Historical Control Data [Crl:CD®(SD)IGS BR Rats]

Reproductive Historical Control Data
Crl:CD®(SD)IGS BR Rats

GRAND MEAN SUMMARY
PARENTAL AND NEONATAL OBSERVATIONS

ENDPOINT	Mean	SD	Min	Max	25th Quartile	75th Quartile
MEAN NO. PUPS BORN	14.2	1.02	12.0	16.3	13.4	15.0
PUP SURVIVAL INDICES (PND)						
BIRTH-4 (BEFORE SELECTION)	96.2	2.05	91.3	99.3	95.3	97.6
DAYS 4-21 (AFTER SELECTION)	98.9	1.45	95.4	100	98.7	100.0
MEAN PUP WEIGHTS (g) MALE (PND)						
DAY 1	7.0	0.23	6.5	7.4	6.8	7.1
DAY 4 (BEFORE SELECTION)	9.9	0.57	8.6	10.7	9.5	10.4
DAY 7	15.4	1.67	11.7	17.8	15.1	16.6
DAY 14	31.0	3.91	22.5	36.5	28.0	33.6
DAY 21	48.6	6.05	34.9	58	45.3	52.9
MEAN PUP WEIGHTS (g) FEMALE (PND)						
DAY 1	6.6	0.22	6.1	6.9	6.4	6.7
DAY 4 (BEFORE SELECTION)	9.3	0.54	8.1	10	9.0	9.7
DAY 7	14.6	1.60	11	16.8	14.1	15.9
DAY 14	29.7	3.82	21.2	34.7	26.6	32.2
DAY 21	46.4	5.70	33.3	54.8	43.6	50.7
ANOGENITAL DISTANCE (PND 1)						
MALE	5.3	0.32	4.8	5.7	5.3	5.3
FEMALE	3.2	0.43	2.7	3.9	3.1	3.3
MEAN BALANOPREPUTIAL SEPARATION (PND)	44.7	2.18	41.6	49	43.2	46.4
MEAN BODY WEIGHT AT ACQUISITION	227.8	11.70	210.5	248	221.7	230.8
MEAN VAGINAL PATENCY (PND)	33.3	1.68	31.9	38.8	32.5	33.3
MEAN BODY WEIGHT AT ACQUISITION	111.5	6.36	102.8	119.5	106.5	118.0

APPENDIX E

Study Protocol

Study Number[ ]

PROTOCOL AMENDMENT III

Sponsor:[ ]

Sponsor Study No.: 03-004

A. Title of Study:

A Female Pubertal Assay of SP 7077 Variant (TS02044) Administered Orally in Juvenile Female Rats

B. Protocol Modification:

1) **X. Statistical Methods:**

Please add the following sentence:

The mean age of first estrus will be analyzed by a parametric one-way analysis of variance (ANOVA)[2] to determine intergroup difference. If the results of the ANOVA are significant ($p<0.05$), Dunnett's test[3] will be applied to the data to compare the treated groups to the control group.

C. Reason for Protocol Modification:

1) To describe the method of statistical analysis of mean age of first estrus.

Approved By:

[ ]

Study Number:

PROTOCOL AMENDMENT II

Sponsor:

Sponsor Study No.: 03-004

A. Title of Study:

A Female Pubertal Assay of SP 7077 Variant (TS02044) Administered Orally in Juvenile Female Rats

B. Protocol Modification:

1) **VII. Experimental Design:**

F. General Observations During the Experimental Period:

4. Determination of Estrous Cycles:

Please add the following sentence:

The mean age of first estrus will be determined.

C. Reason for Protocol Modification:

1) To add determination of mean age of first estrus to the parameters to be evaluated.

Approved By:

Study Number

PROTOCOL AMENDMENT I

Sponsor:

Sponsor Study No.: 03-004

A. Title of Study:

A Female Pubertal Assay of SP 7077 Variant (TS02044) Administered Orally in Juvenile Female Rats

B. Protocol Modification:

1) **I. Objective:**

Replace this section with the following:

The objective of this study is to evaluate the ability of the test article to induce effects on pubertal development in the intact juvenile female rat.

C. Reason for Protocol Modification:

1) Prior to issuance of the protocol, the Sponsor elected to remove evaluation of the thyroid from the study design. The reference to the thyroid in the objective was inadvertently not removed from the protocol.

Approved By:

January 31, 2003

PROTOCOL

A FEMALE PUBERTAL ASSAY OF SP 7077 VARIANT (1'S02044) ADMINISTERED ORALLY IN JUVENILE FEMALE RATS

Sponsor Study Number: 03-004

Submitted To:

I. Objective: The objective of this study is to evaluate the ability of the test article to induce effects on pubertal development and thyroid function in the intact juvenile female rat.

II. Personnel Involved in the Study:

III. **Study Schedule:**

Proposed Animal Receipt Date:	February 6, 2003
Proposed Experimental Start Date:	February 18, 2003
Proposed Experimental Termination Date:	March 10, 2003
Proposed Audited Report Date:	April 25, 2003

IV. **Test Article Data:**

A. Identification:	SP 7077 Variant (TS02044)
B. Lot Number:	TS02044
C. Purity:	100%
D. Stability:	The test article is considered to be stable under the storage conditions provided by the Sponsor.

E. Physical Description: Dark brown viscous liquid

F. Storage Conditions: Store at ambient conditions.

G. Reserve Samples: Reserve samples of the test article will be taken in accordance with [standard operating procedures and stored in the Archives at
indefinitely unless otherwise specified.

H. Personnel Safety Data: To be provided by the Sponsor. It is the responsibility of the Sponsor to notify the testing facility of any special handling requirements for the test article. A material safety data sheet (MSDS) should accompany the test article upon arrival at the laboratory.

V. Test System:

A. Species: Rat.

B. Strain: Sprague-Dawley Crl:CD®(SD)IGS BR.

C. Source: Charles River Laboratories
Portage, Michigan

D. Number on Study: 60 Females (minimum of 80 Females purchased). Immature females will be supplied in litters of 10 animals with their own or another (fostering) dam. The immature females will be nine days old upon receipt. Animals not assigned to the study will be transferred to the stock animal colony or will be euthanized by carbon dioxide inhalation and the carcasses discarded.

E. Body Weight Range: At randomization: 30-50 g. All animals assigned to study will be ± 5 g of the mean.

F. Age: At start of dosing animals will be 22 days of age.

G. Identification System: The maternal animals will be uniquely identified by a Monel® metal eartag displaying the animal number. The pups will be identified by tail tattoo. Individual cage cards will be affixed to each cage and will display the animal number, group number, study number, dosage level and sex of the animal.

H. Justification for Selection: This species and strain of animal is recognized as appropriate for reproduction studies!
reproductive historical control data in this species and strain of rat. This animal model has been proven to be susceptible to the effects of reproductive toxicants.

VI. Specific Maintenance Schedule:

A. Animal Housing:

All animals will be initially housed by litter with their own or another (fostering) dam in plastic maternity cages containing ground corncob nesting material (Bed-O'Cobs®). Following randomization, the juvenile female animals will be weaned and housed three animals per cage in plastic maternity (shoebox) cages. The cage bedding will be changed at least three times each week. The cages will be subjected to routine cleaning at a frequency consistent with maintaining good animal health and standard operating procedures. The facilities a re fully accredited by the Association for Assessment and Accreditation of Laboratory Animal Care International (AAALAC International).

B. Environmental Conditions:

Controls will be set to maintain an average daily temperature of 71 ± 5°F (22 ± 3°C) and an average daily relative humidity of 50 ± 20%. Temperature and relative humidity will be monitored continuously. Data for these two parameters will be scheduled for automatic collection on an hourly basis. Fluorescent lighting controlled by light timers will provide illumination for a 12-hour light/dark photoperiod. Temporary adjustments to the light/dark cycles may be made to accommodate protocol-specified activities. The ventilation rate will be set at a minimum of 10 room air changes per hour, 100% fresh air

C. Drinking Water:

Reverse osmosis-purified water will be available *ad libitum*. Filters servicing the automatic watering system are changed regularly according to standard operating procedures. The municipal water supplying the laboratory is analyzed according to standard operating procedures on a routine basis to assure that contaminants are not present in concentrations that would be expected to affect the outcome of the study.

D. Basal Diet:

PMI Nutrition International, LLC Certified Rodent LabDiet® 5002 will be offered *ad libitum* during the study. Periodic analyses of the certified feed are performed by the manufacturer to ensure that heavy metals and pesticides are not present at concentrations that would be expected to affect the outcome of the study. Results of the analyses are provided to by the manufacturer and will be placed in the study records. Feeders will be changed and sanitized once per week.

VII. Experimental Design:

A. Animal Receipt and Quarantine:

Each animal will be inspected by a qualified technician upon receipt. Rats judged to be in good health and suitable as test animals will be immediately placed in quarantine for nine (if animals are received at ten days of age, randomized at age 21 days, with dosing starting at age 22 days) days. All rats will be initially sexed and weighed. Maternal animals will be permanently identified with a metal ear tag, and juvenile animals will be identified by tail tattoo. During the quarantine period, each rat will be observed twice daily for changes in general appearance and behavior. Prior to the start of the in-life phase, those animals judged to be suitable test subjects will be identified and receive a detailed physical examination at the time of animal selection for randomization.

B. Randomization:

At the conclusion of the quarantine period (animals 21 days of age), animals judged to be suitable test subjects and meeting acceptable body weight requirements, will be assigned at random using a computer program. At that time, the animal numbers and corresponding body weights will be entered into the Toxicology Data Management System (WTDMS™). A printout containing the animal numbers and individual group assignments will be generated based on body weight stratification into a block design. Animals will

then be weaned and arranged into the groups according to the printout. Each of 4 groups will consist of fifteen females. If after randomization statistically significant differences between groups exist, new randomizations will be generated until group mean body weights are homogeneous.

C. Route and Rationale of Test Article Administration:

The route of administration will be oral (gavage). Historically, this route has been used extensively for studies of this nature. Appropriate-sized steel, ball-tipped, flexible Teflon® dosing cannulae will be used for the oral administration by gavage. Any losses, or incomplete dosing will be recorded.

D. Organization of Test Groups, Dosage Levels and Treatment Regimen:

1. Organization of Test Groups:

The dosage levels were determined from the results of previous studies and were provided by the Sponsor Representative after consultation with the WIL Study Director. The following table presents the study group arrangement.

Group Number	Test Article	Dosage Level (mg/kg/day)	Dose Concentration (mg/ml)	Dose Volume (ml/kg)	Number of Females
1	Corn Oil	0	0	5	15
2	TS02044	50	10	5	15
3	TS02044	150	30	5	15
4	TS02044	500	100	5	15

2. Vehicle Control Article:

Corn oil.

3. Treatment Regimen:

The test and control articles will be administered as single daily doses beginning on day 22 and continuing through 41 days of age. All animals will be dosed at approximately the same time each day, and the time of dosing will be recorded for each animal.

4. Adjustment of Dosages:

Individual doses will be calculated based on each daily body weight to provide the proper dosage. Individual animal body weights and individual animal dosages will be recorded.

E. Preparation and Analysis of Test Article Formulations:

1. Method and Frequency of Preparation:

Based on the physical characteristics of the test article, appropriate methods will be used to ensure the best possible formulations of the test article in the vehicle. Dosing formulations of the test article will be prepared weekly. The study director or the deputy director or designee will visually inspect the formulations prior to initiation of dosing. This visual inspection will be performed to assure that the formulations are visibly homogeneous and acceptable for dosing. Any special procedures required for formulation will be documented according to Good Laboratory Practices and presented in the final report of this study.

2. Homogeneity and Stability of Test Article Formulation:

Dosing mixture homogeneity will be collected prior to the initiation of test article administration. While undergoing stirring in the beaker, the following sample aliquots (5 mL) will be drawn for analysis: control, three aliquots (from the middle); all treatment groups, nine aliquots (3 each from the top, middle and bottom). Two of the three samples will be sent to Chevron Texaco Energy Research and Technology Company c/o Michelle Seary, for analysis of homogeneity and stability over a ten-day period. The samples will be shipped under ambient conditions. The remaining sample from each dose level and strata will be stored under normal laboratory conditions for possible future analysis.

3. Concentration Analysis:

Samples of the dosing mixtures will be collected on the first and seventh day of each weekly preparation. At each time point, two 5-mL aliquots will be taken from each dose level (middle stratum), including the control group. The dosing mixture will be thoroughly mixed before taking each sample. One sample from each dose level will be analyzed; the remaining sample will be retained by the Testing Laboratory for possible future analysis.

Dosing mixture samples for homogeneity, stability and concentration of the test article at all dose levels, including the control, will be analyzed by the Sponsor. The methods employed will be one or more of the following:

[ ]

Concentration and stability data will be evaluated using percent difference. The acceptable tolerance between the theoretical and measured values is 15%.

Mixtures will be considered homogeneous if the difference between the overall group mean and the strata mean is 10% or less.

4. **Sample Handling and Shipment:**

Each 5-mL sample will be placed in a glass vial with a Teflon-lined lid. The vial plus sample weight will be recorded with an accuracy of ± 0.0005 g. Each sample will be stored at ambient temperature. Each sample container will be labeled with the following information:

Accession Number
Sponsor's Reference Number
Testing Laboratory Study Number
Test Article Name
Dose Level (mg/kg)
Dosing Mixture Concentration (mg/mL)
Preparation Date
Sampling Date
Weight of Sample

The sample shall be packed in a suitable container to maintain the temperature conditions specified in Section IV.F. during transit plus an adequate margin of safety for any transit delays. The sample shall be sent by express courier to:

his notification shall include test article and study identification, carrier, and estimated time/date of arrival. Sample shipments shall be accompanied by an inventory sheet describing the samples contained in the shipment with the information described above.

F. General Observations During the Experimental Period:

1. Clinical Signs:

The rats will be observed twice daily for appearance, behavior, moribundity and mortality. A detailed physical examination will be conducted at the time of randomization. The rats will also be observed at the time of dosing and again approximately one hour after administration. Observations shall include, but are not limited to, evaluations for changes in appearance of the skin and fur, eyes and mucous membranes, respiratory, circulatory, autonomic and central nervous system functions, somatomotor activity and behavior patterns. Observations will be recorded.

2. Body Weights:

Body weights will be recorded individually on a daily basis (to the nearest 0.1 gram) beginning one day prior to the start of dosing. Final body weights will be collected prior to euthanasia.

3. Vaginal Perforation:

Each female pup (15/group) will be observed daily for vaginal perforation beginning on PND 25 as described by Adams et al.[1] Examination of the females will continue daily until vaginal perforation is present. The body weight of each female will be recorded on the day of acquisition of vaginal perforation.

4. Determination of Estrous Cycles:

Daily vaginal smears will be performed to determine the stage of estrus beginning on the day vaginal perforation is observed. Smearing will continue through the day of necropsy.

G. Euthanasia:

On PND 42, the animals will be euthanized by carbon dioxide inhalation, and the time of euthanasia will be recorded for each animal. Any animals not expected to survive until the following dosing period or until the scheduled euthanasia will be euthanized as described above.

VIII. Anatomic Pathology:

A. Macroscopic Examination:

A complete necropsy examination will be conducted on all animals dying spontaneously or euthanized *in extremis*. This will include examination of the external surface, all orifices, the external surface of the brain and spinal cord and the thoracic, abdominal and pelvic cavities including viscera. A complete necropsy will not be conducted on animals surviving to study termination. The following tissues will be collected and placed in 10% neutral-buffered formalin:

Ovaries	Uterine Horns (Four sections per horn)
Cervix and Uterine Body (Two sections)	Vagina
Thyroid	All gross (internal) lesions

B. Organ Weights:

1. Uterine Weights:

Wet and blotted uterine weights will be measured for all animals surviving to the scheduled necropsy. Uterine weights will not be collected for any animals found dead or euthanized *in extremis*.

The uterus will be harvested from all animals using the following procedure. The harvesting of uteri will be performed in the same sequence as which dosing occurred. The pubic symphysis will be opened and each ovary and uterine horn will be detached from the dorsal abdominal wall. The ovaries are separated from the uterine horns at the oviduct/uterus junction. The urinary bladder and ureters will be removed from the ventral and lateral side of the uterus and vagina. The fibrous adhesion between the rectum and vagina is then detached until the junction of the vaginal orifice and perineal skin is identified. The uterus and vagina are detached from the body by incising the vaginal wall just above the junction between the perineal skin. The excess fat and adnexa will be trimmed away. The vagina is then removed from the uterus, leaving the cervix intact and attached to the uterus for uterus weight measurement. Care is to be taken during uterus harvesting such that the luminal contents are retained. A record will be made if any luminal contents are lost. The uterus will b transferred to a uniquely marked and tared plastic Petri dish with care avoid desiccation before weighing. The Petri dish should be lined wi saline-moistened filter paper (or equivalent) and covered to minimi desiccation.

The uterus harvesting and weighing procedure will be done in the order described below.

1. Animal is euthanized and uterus harvested.
2. Uterus (with luminal fluid) is immediately transferred to a Petri dish (lined with saline-moistened filter paper or equivalent) that was tared immediately prior to the transfer.
3. The uterus' wet weight is recorded to the nearest 0.1 mg.
4. The uterus is opened and blotted (see below).
5. The uterus is placed in a Petri dish (lined with saline-moistened filter paper or equivalent) that was tared immediately prior to the transfer.
6. The uterus' blotted weight is recorded to the nearest 0.1 mg.

Immediately following collection of the wet weight, the uterus will be individually processed by opening the uterine wall and carefully blotting the excess fluid. Both uterine horns will be pierced and cut longitudinally with small surgical scissors, placed on filter paper (ex. Whatman No. 3) and gently pressed with another piece of dry filter paper to absorb the luminal fluid. The procedure will not be so severe as to render the tissue unacceptable for histopathologic analysis, as this additional investigation may be performed at the discretion of the Sponsor (by protocol amendment).

2. Ovary, Liver, Pituitary and Adrenal Weights:

The following organs from all females euthanized at scheduled termination will be weighed (to the nearest 0.1 mg):

Ovaries
Liver
Pituitary gland
Adrenal glands

To minimize systematic bias in the weighing procedures, organ harvesting and weighing procedures will be divided as equally as possible among the prosecting and weighing technicians, such that all animals from a group are not processed by a single individual.

C. Microscopic Examination:

Following collection of wet uterine weight, blotting of the uterus and collection of blotted uterine weight, each uterus will be placed in a uniquely identified jar of 10% neutral-buffered formalin and preserved for possible

microscopic examination. The vagina, ovaries, and thyroid from each animal will be similarly preserved with the uterus.

Microscopic examination of hematoxylin-eosin stained paraffin sections may be performed on the following tissues from all animals at the discretion of the Sponsor (additional cost).

Ovaries	Uterine Horns (Four sections per horn)
Cervix and Uterine Body (Two sections)	Vagina (Two sections)
Thyroid	All gross (internal) lesions

IX. Duration of Study:

The conduct of this study will require approximately five weeks for acclimation, dosing and necropsy.

X. Statistical Methods:

Body weights, body weight gains, organ weights, uterine weights (wet and blotted), luminal fluid weights, mean days of acquisition of vaginal perforation and estrous cycle length will be analyzed by a parametric one-way analysis of variance (ANOVA)[2] to determine intergroup difference. If the results of the ANOVA are significant ($p<0.05$), Dunnett's test[3] will be applied to the data to compare the treated groups to the control group.

XI. Quality Assurance:

The study will be audited by the WIL Quality Assurance Unit while in progress to assure compliance with the study protocol and protocol amendments, WIL standard operating procedures and the appropriate provisions of EPA/TSCA and FIFRA Good Laboratory Practice Standards published in the Federal Register (40 CFR Part 792 and 40 CFR Part 160) and the OECD Good Laboratory Practice Regulations [C (97) 186/Final]. The raw data and draft report will be audited by the Quality Assurance Unit prior to submission to the Sponsor Representative to assure that the final report accurately describes the conduct and the findings of the study.

This study will be included on the master list of regulated studies.

XII. Records to be Maintained:

All original raw data records, as defined by SOPs and the applicable GLPs, will be stored as described in Section XIII. in the Archives at

XIII. Work Product:

The Sponsor will have title to all documentation records, raw data, slides, specimens and other work product generated during the performance of the study. All work product, including raw paper data, pertinent electronic storage media and specimens will be returned to the Sponsor after a period of six months or following issuance of the final report. All work product will be stored in compliance with regulatory requirements.

Any work product, including documents, specimens, and samples, that are required by this protocol, its amendments, or other written instructions of the Sponsor, to be shipped by [illegible] another location will be appropriately packaged and labeled as defined by [illegible] OPs and delivered to a common carrier for shipment. [illegible] ill not be responsible for shipment following delivery to the common carrier.

XIV. Reports:

The final report will consist of an abbreviated summary report, including data tables and an interpretation and discussion of the study results.

[illegible] will provide one copy of an audited draft report, submitted in a timely manner upon completion of the study prior to issuance of the final report. One revision will be permitted as part of the cost of the study, from which the Sponsor's reasonable revisions and suggestions will be incorporated into the final report, as appropriate. Additional changes or revisions may be made, at extra cost. It is expected that the Sponsor will review the draft report and provide comments t[illegible] thin a two-month time frame following submission. [illegible] ill submit the final report within one month following receipt of comments. Two copies of the final report (1 unbound, 1 PDF electronic copy on CD) will be provided. Requests for additional copies of the final report may result in additional charges.

XV. Animal Welfare Act Compliance:

This study will comply with all applicable sections of the Final Rules of the Animal Welfare Act regulations (9 CFR Parts 1, 2 and 3). The Sponsor should make particular note of the following:

- The Sponsor Representative's signature on this protocol documents for the Study Director the Sponsor's assurance that the study described in this protocol does not unnecessarily duplicate previous experiments.

- Whenever possible, procedures used in this study have been designed to avoid or minimize discomfort, distress or pain to animals. All methods are described in this study protocol or in written laboratory standard operating procedures.

- Animals that experience severe or chronic pain or distress that cannot be relieved will be painlessly euthanized as deemed appropriate by the veterinary staff and Study Director. The Sponsor will be advised by the Study Director of all circumstances which could lead to this action in as timely a manner as possible.

- Methods of euthanasia used during this study are in conformance with the above-referenced regulation.

XVI. Protocol Modification:

Modification of the protocol may be accomplished during the course of this investigation. However, no changes will be made in the study design without the written permission of the Sponsor. In the event that the Sponsor requests or approves a change in the protocol, such changes will be made by appropriate documentation in the form of protocol amendment. All alterations of the protocol and reasons for the modification(s) will be signed by the Study Director and the Sponsor Representative.

XVII. References:

1. Adams, J., Buelke-Sam, J., Kimmel, C.A., Nelson, C.J., Reiter, L.W., Sobotka, T.J., Tilson, H.A. and Nelson, B.K. (1985) Collaborative behavioral teratology study: Protocol design and testing procedure. Neurobehav. Toxicol. Teratol. 7: 579-586.

2. Snedecor, G.W. and Cochran, W.G. (1980) One Way Classifications; Analysis of variance. In: Statistical Methods, Seventh Edition. The Iowa State University Press, Ames, IA. pp. 215-237.

3. Dunnett, C.W. (1964) New tables for multiple comparisons with a control. Biometrics, 20:482-491.

XVIII. Protocol Approval:

Sponsor approval received via telephone on January 30, 2003.

FINAL ABBREVIATED REPORT

STUDY TITLE

A FEMALE PUBERTAL ASSAY OF SP 7077 VARIANT
(TS03005) ADMINISTERED ORALLY IN JUVENILE FEMALE RATS

STUDY NUMBER

STUDY DIRECTOR

SANITIZED (Non-CBI)

STUDY INITIATION DATE

March 5, 2003

STUDY COMPLETION DATE

June 23, 2003

PERFORMING LABORATORY

SPONSOR STUDY NUMBER

03-006

SPONSOR

COMPLIANCE STATEMENT

This study, designated WIL-187034, was conducted in compliance with the United States Environmental Protection Agency (EPA) Good Laboratory Practice Standards (40 CFR Part 160), October 16, 1989; the United States Environmental Protection Agency (EPA) Good Laboratory Practice Standards (40 CFR Part 792), September 18, 1989; the Organisation for Economic Cooperation and Development (OECD) Principles of Good Laboratory Practice [C (97) 186/Final], November 26, 1997; the standard operating procedures of [ ] and the protocol as approved by the sponsor.

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1. SUMMARY

1.1. OBJECTIVE

The objective of the study was to evaluate the ability of the test article to induce effects on pubertal development in the intact juvenile female rat.

1.2. STUDY DESIGN

SP 7077 Variant (TS03005), in the vehicle, Mazola® corn oil, was administered orally by gavage once daily for 20 consecutive days to three groups of 15 Crl:CD®(SD)IGS BR immature female rats. Dosage levels were 150, 500 and 1000 mg/kg/day, and the dose volume was 5 mL/kg. A concurrent control group received the vehicle on a comparable regimen. These dosage levels were determined from the results of previous studies and were provided by the sponsor representative after consultation with the WIL study director.

Dosing procedures were performed from March 18 through April 6, 2003, when the animals were 22 to 41 days of age. At the initiation of dose administration, body weights ranged from 25.4 to 49.6 g. The following table presents the study group assignment:

Group Number	Test Article	Dosage Level (mg/kg/day)	Dose Concentration (mg/mL)	Dose Volume (mL/kg)	Number of Females
1	Corn Oil	0	0	5	15
2	TS03005	150	30	5	15
3	TS03005	500	100	5	15
4	TS03005	1000	200	5	15

Preparation, storage and sampling of the control and test article formulations were conducted as follows. For the control group, the appropriate amount of the vehicle was dispensed into a storage container and stirred throughout use. The SP 7077 Variant (TS03005) dosing formulations were prepared by weighing an appropriate amount of test article for each group into a tared, calibrated storage container. A stir bar and approximately 80% of the vehicle were added to the storage container, and the mixture

was stirred until uniform. The formulations were heated in a water bath (52°C to 58°C). The appropriate volume of vehicle was added to bring each formulation to the calibration mark, and the preparations were stirred until uniform and throughout use. The SP 7077 Variant (TS03005) dosing formulations were prepared weekly, divided into aliquots for daily dispensation and stored at room temperature. Three sets of samples from the dosing formulations (including the control group) were collected prior to the initiation of dose administration. Two sets of samples for concentration verification were collected on the day of preparation and on the last day of use of each preparation. Two sets of homogeneity/stability samples and three sets of concentration samples were shipped under ambient conditions to the sponsor for homogeneity, stability and concentration analyses; the remaining samples were stored under normal laboratory conditions a[ ] for possible future analysis.

Eight dams with 13 or 14 female pups each (111 pups total) were received from Charles River Laboratories, Inc., Portage, Michigan, on March 6, 2003. The pups were 10 days old upon receipt. Pups were initially housed in plastic maternity cages (by litter with their own or a fostering dam) during the acclimation period (12 days) until randomization of the pups on postnatal day (PND) 21. Following randomization, the female pups were weaned and housed three per cage in plastic maternity cages. Environmental controls were set to maintain an average daily temperature of 71±5°C and an average daily relative humidity of 50±20%. Actual mean daily temperatures ranged from 70.7°-70.9°F (21.5°-21.6°C) and mean daily relative humidity ranged from 35.4%-43.7%. Light timers were calibrated to provide a 12-hour light (6 a.m. to 6 p.m.)/12-hour dark photoperiod. Air handling units were set to provide approximately 10 fresh air changes per hour. PMI Nutrition International, LLC, Certified Rodent LabDiet® 5002 and reverse-osmosis-purified water were offered *ad libitum*.

All animals were observed twice daily for appearance, behavior, mortality and moribundity. A detailed physical examination was performed at the time of randomization. The rats were also observed daily (prior to dosing) and one hour

following dose administration. Individual body weights were recorded daily. Each female pup was observed daily for vaginal patency beginning on PND 25 as described by Adams, *et al.*[1] Examination continued daily until vaginal patency was observed. Body weights were recorded on the day that vaginal patency was noted. Beginning on the day that vaginal patency was observed, vaginal lavages were performed daily, through the day of euthanasia, and the slides were examined to determine the stage of estrus. The mean estrous cycle length was calculated. The average cycle length was calculated and reported for complete estrous cycles *(i.e.*, the total number of returns to metestrus [M] or diestrus [D] from estrus [E] or proestrus [P] until the day of euthanasia), beginning on the day that vaginal patency was observed. Estrous cycle length was determined by counting the number of days from the first M or D in a cycle to the first M or D in a subsequent cycle. In addition, the mean age at the onset of the first estrous cycle was calculated using the first day each animal was observed to be in estrus. All animals were euthanized on PND 42 by carbon dioxide inhalation. The uterus (wet and blotted), ovaries, liver, pituitary gland and adrenal glands were weighed. Luminal fluid weight was calculated by subtracting the blotted uterus weight from the wet uterus weight. A gross necropsy was not performed. The ovaries, uterus (horns and body), cervix, vagina, thyroid glands and gross lesions were retained for possible microscopic examination.

Statistical tests were performed using appropriate computing devices or programs. Analyses were conducted using two-tailed tests for minimum significance levels of 1% and 5%, comparing each test article-treated group to the control group. Each mean was presented with the standard deviation (S.D.) and the number of animals (N) used to calculate the mean. Mean body weights, body weight changes, days of acquisition of vaginal patency, estrous cycle lengths, age at the first occurrence of estrus, luminal fluid weights and absolute and relative organ weights were subjected to a parametric one-way analysis of variance (ANOVA)[2] to determine intergroup differences. If the ANOVA revealed statistically significant ($p<0.05$) intergroup variance, Dunnett's test[3] was used to compare the test article-treated groups to the control group.

1.3. RESULTS

All animals survived to the scheduled euthanasia. Salivation was noted for two and seven animals in the 500 and 1000 mg/kg/day groups, respectively, one hour following dose administration during study days 12-19 (PND 34-41). Other clinical findings (at the daily observations), including hair loss on the dorsal head or right dorsal thoracic area and red material on the dorsal head, were observed in single animals and did not occur in a dose-related manner.

A statistically significant ($p<0.01$) decrease in mean body weight gain was observed in the 1000 mg/kg/day group the on first day of test article administration (PND 22-23). Other statistically significant ($p<0.05$ or $p<0.01$) increases and decreases in mean body weight gain in the test article-treated groups were transient and/or did not occur in a dose-related manner. Mean body weight in the 1000 mg/kg/day group was slightly decreased on PND 23 (5.7%, not statistically significant) and generally similar to that in the control group for the remainder of the study. Mean body weights in the 150 and 500 mg/kg/day groups were unaffected by test article administration throughout the study.

Vaginal patency was achieved earlier in the 500 and 1000 mg/kg/day groups than in the control group. The differences were statistically significant ($p<0.01$). Mean days of acquisition were 34.6, 34.7, 30.0 and 27.9 days in the control, 150, 500 and 1000 mg/kg/day groups, respectively. The values in the 500 and 1000 mg/kg/day groups were below the minimum mean value in the WIL historical control data (31.9 days). Since the females were younger on the day that vaginal patency was observed, mean body weights on the day of acquisition in the 500 and 1000 mg/kg/day groups were lower (statistically significant at $p<0.01$) than the control group value. These differences were attributed to the test article. No test article-related changes in the mean day of acquisition of vaginal patency or mean body weight on the day of acquisition were observed in the 150 mg/kg/day group. Differences from the control group were slight and were not statistically significant. No statistically significant differences in mean estrous cycle lengths were observed. The numbers of females that completed at least one estrous cycle

were 7, 6, 9 an in the control, 150, 500 and 1000 mg/kg/day groups, respectively. Estrous cycle le in females of this age are highly variable, and combined with the limited number of animals and days of evaluation, evidence of a test article-related effect was inconclusive. The mean age at the first occurrence of estrus in the test article-treated groups was similar to that in the control group.

Test article-related reductions in mean absolute and relative (to final body weight) ovary weights were observed in the 1000 mg/kg/day group; the difference from the control group for the relative ovary weight was statistically significant ($p<0.01$). Mean absolute and relative uterus (wet and blotted) weights in the 1000 mg/kg/day group were also reduced (not statistically significant) compared to the control group values. However, this reduction was not considered test article-related because 11 of the 15 females in this group were in diestrus at the time of necropsy, contributing in part, to the lower weights in this group. Seven females in the control group were in estrus or proestrus at the time of necropsy. Individual uterus weights in all groups were greatest when the female was in or nearing proestrus. Mean luminal fluid weight in the 1000 mg/kg/day group was similar to that in the control group. Mean absolute and relative liver weights in the 500 and 1000 mg/kg/day groups were increased (statistically significant at $p<0.01$) compared to the control group values. These increases were considered test article-related. No other test article-related or statistically significant differences in organ weights were observed in the test article-treated groups.

1.4. CONCLUSIONS

Based on the results of this study, the test article, SP 7077 Variant (TS03005), administered orally to juvenile female rats exhibited estrogenic effects in the 500 and 1000 mg/kg/day groups, as evidenced by early achievement of vaginal patency. No test article-related estrogenic effects were observed at a dosage level of 150 mg/kg/day.

2. KEY STUDY PERSONNEL AND REPORT SUBMISSION

Study Supervisors:

Report Prepared By:

Report Reviewed By:

KEY STUDY PERSONNEL AND REPORT SUBMISSION (CONTINUED)

Report Approved and Submitted By:

3. QUALITY ASSURANCE UNIT STATEMENT

3.1. PHASES INSPECTED

Date(s) of Inspection(s)	Phase Inspected	Date(s) Findings Reported to Study Director	Date(s) Findings Reported to Management
3/18/03	Test Article Preparation/Analysis	3/18/03	4/30/03
5/1-2/03	Study Records (I-1)	5/3/03	6/23/03
5/1-2/03	Study Records (N-1)	5/3/03	6/23/03
5/1-2/03	Study Records (Rx-1)	5/3/03	6/23/03
5/3-4,13/03	Draft Report	5/13/03	6/23/03

This study was inspected in accordance with the U.S. EPA Good Laboratory Practice Regulations (40 CFR Parts 160 and 792), the OECD Principles of Good Laboratory Practice, the standard operating procedures of [ ] and the sponsor's protocol and protocol amendments with the following exception. The data located in Appendices A (Certificate of Analysis) and B (Analytical Chemistry Report) were the responsibility of the sponsor. Quality Assurance findings, derived from the inspections during the conduct of the study and from the inspections of the raw data and draft report, are documented and have been reported to the study director. A status report is submitted to management monthly.

This report accurately reflects the data generated during the study. The methods and procedures used in the study were those specified in the protocol, its amendments and the standard operating procedures of [ ]

The raw data, the retention sample(s), if applicable, and the final report will be stored in the Archives at [ ] r another location specified by the sponsor.

3.2. APPROVAL

This study was inspected according to the criteria discussed in Section 3.1.

Report Audited By:

Report Released By:

4. REFERENCES

1. Adams, J.; Buelke-Sam, J.; Kimmel, C.A.; Nelson, C.J.; Reiter, L.W.; Sobotka, T.J.; Tilson, H.A.; Nelson, B.K. Collaborative behavioral teratology study: protocol design and testing procedure. Neurobehavioral Toxicology and Teratology 1985, 7, 579-586.

2. Snedecor, G.W.; Cochran, W.G. One Way Classifications; Analysis of Variance. In Statistical Methods, 7th ed.; The Iowa State University Press: Ames, IA, 1980; pp 215-237.

3. Dunnett, C.W. New tables for multiple comparisons with a control. Biometrics 1964, 20, 482-491.

5. DEVIATIONS FROM THE PROTOCOL

This study was conducted in accordance with the protocol and protocol amendments, except for the following.

- Litters of 10 female pups/dam were to be supplied by Charles River Laboratories, Inc. However, 13 to 14 pups/dam were received.
- Pups were to be nine days old upon receipt. The pups were 10 days old when received from the supplier.
- The acclimation/quarantine period was to be nine days. However, animals were acclimated for 12 days.
- At the time of randomization, body weights for the pups were to be 30 to 50 g and all animals assigned to the study were to be ±5 g of the mean. Due to the number of animals below the body weight range, the actual body weight range was 27 to 43 g; not all animals assigned to the study were ±5 g of the mean. The animal weight range was fairly evenly distributed across groups.
- Body weights were to be recorded to the nearest 0.1 g. However, on the day prior to initiation of dosing, the body weights were collected to the nearest gram.
- Samples from the dosing formulations were to be collected on the first and seventh days of each weekly preparation. For the second weekly preparation, samples were collected on the first and eighth days.
- On April 7, 2003, the vagina for control group female no. 22597-06 was lost at necropsy and could not be retained as required by the protocol.
- Organs were to be weighed to the nearest 0.1 mg. However, livers were weighed to the nearest 0.01 g.

These deviations did not negatively impact the quality or integrity of the data nor the outcome of the study.

TABLES 1 - 17

TABLE 1
PUBERTAL ASSAY OF SP 7077 VARIANT (TS03005) IN JUV. FEMALE RATS
SUMMARY OF SURVIVAL AND DISPOSITION

FEMALES

GROUP :	1				2				3				4			
PND	LIVE	FD	EE	SE	LIVE	FD	EE	SE	LIVE	FD	EE	SE	LIVE	FD	EE	SE
22	15	0	0	0	15	0	0	0	15	0	0	0	15	0	0	0
23	15	0	0	0	15	0	0	0	15	0	0	0	15	0	0	0
24	15	0	0	0	15	0	0	0	15	0	0	0	15	0	0	0
25	15	0	0	0	15	0	0	0	15	0	0	0	15	0	0	0
26	15	0	0	0	15	0	0	0	15	0	0	0	15	0	0	0
27	15	0	0	0	15	0	0	0	15	0	0	0	15	0	0	0
28	15	0	0	0	15	0	0	0	15	0	0	0	15	0	0	0
29	15	0	0	0	15	0	0	0	15	0	0	0	15	0	0	0
30	15	0	0	0	15	0	0	0	15	0	0	0	15	0	0	0
31	15	0	0	0	15	0	0	0	15	0	0	0	15	0	0	0
32	15	0	0	0	15	0	0	0	15	0	0	0	15	0	0	0
33	15	0	0	0	15	0	0	0	15	0	0	0	15	0	0	0
34	15	0	0	0	15	0	0	0	15	0	0	0	15	0	0	0
35	15	0	0	0	15	0	0	0	15	0	0	0	15	0	0	0
36	15	0	0	0	15	0	0	0	15	0	0	0	15	0	0	0
37	15	0	0	0	15	0	0	0	15	0	0	0	15	0	0	0
38	15	0	0	0	15	0	0	0	15	0	0	0	15	0	0	0
39	15	0	0	0	15	0	0	0	15	0	0	0	15	0	0	0
40	15	0	0	0	15	0	0	0	15	0	0	0	15	0	0	0
41	15	0	0	0	15	0	0	0	15	0	0	0	15	0	0	0
42	0	0	0	15	0	0	0	15	0	0	0	15	0	0	0	15

PND = POSTNATAL DAY FD = FOUND DEAD EE = EUTHANIZED IN EXTREMIS SE = SCHEDULED EUTHANASIA

1- 0 MG/KG/DAY 2- 150 MG/KG/DAY 3- 500 MG/KG/DAY 4- 1000 MG/KG/DAY

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TABLE 2 (DAILY OBSERVATIONS)
PUBERTAL ASSAY OF SP 7077 VARIANT (TS03005) IN JUV. FEMALE RATS
SUMMARY OF CLINICAL FINDINGS: TOTAL OCCURRENCE/NO. OF ANIMALS

----- F E M A L E -----

TABLE RANGE:	03-18-03 TO 04-07-03			
GROUP:	1	2	3	4
NORMAL				
-NO SIGNIFICANT CLINICAL OBSERVATIONS	315/15	311/15	305/15	314/15
DISPOSITION				
-SCHEDULED EUTHANASIA	15/15	15/15	15/15	15/15
BODY/INTEGUMENT				
-HAIR LOSS DORSAL HEAD	0/ 0	0/ 0	10/ 1	0/ 0
-HAIR LOSS RIGHT DORSAL THORACIC AREA	0/ 0	4/ 1	0/ 0	1/ 1
-DRIED RED MATERIAL DORSAL HEAD	0/ 0	0/ 0	2/ 1	0/ 0

1- 0 MG/KG/DAY 2- 150 MG/KG/DAY 3- 500 MG/KG/DAY 4- 1000 MG/KG/DAY

TABLE 3 (1-HOUR POST-DOSING)
PUBERTAL ASSAY OF SP 7077 VARIANT (TS03005) IN JUV. FEMALE RATS
SUMMARY OF CLINICAL FINDINGS: TOTAL OCCURRENCE/NO. OF ANIMALS

----- F E M A L E -----

TABLE RANGE:	03-18-03 TO 04-06-03			
GROUP:	1	2	3	4
ORAL/DENTAL -SALIVATION	0/ 0	0/ 0	2/ 2	23/ 7

1- 0 MG/KG/DAY 2- 150 MG/KG/DAY 3- 500 MG/KG/DAY 4- 1000 MG/KG/DAY

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TABLE 4
PUBERTAL ASSAY OF SP 7077 VARIANT (TS03005) IN JUV. FEMALE RATS
SUMMARY OF BODY WEIGHTS [G]

FEMALES

GROUP :		1	2	3	4
DAY 22	MEAN	37.7	37.5	38.0	37.8
	S.D.	5.41	7.04	5.85	6.70
	N	15	15	15	15
DAY 23	MEAN	42.3	43.1	41.8	39.9
	S.D.	5.51	7.96	6.43	9.11
	N	15	15	15	15
DAY 24	MEAN	47.1	47.9	46.5	45.3
	S.D.	6.08	7.89	6.36	7.30
	N	15	15	15	15
DAY 25	MEAN	51.4	52.5	51.3	49.9
	S.D.	6.01	8.11	7.12	7.79
	N	15	15	15	15
DAY 26	MEAN	56.8	58.0	56.0	54.1
	S.D.	6.25	9.03	7.39	8.33
	N	15	15	15	15
DAY 27	MEAN	62.1	63.4	61.9	59.8
	S.D.	6.43	9.44	7.96	8.49
	N	15	15	15	15
DAY 28	MEAN	66.4	68.6	66.8	64.6
	S.D.	6.47	9.63	8.08	8.00
	N	15	15	15	15
DAY 29	MEAN	71.3	73.3	71.6	69.0
	S.D.	6.76	9.97	8.55	8.15
	N	15	15	15	15

1- 0 MG/KG/DAY 2- 150 MG/KG/DAY 3- 500 MG/KG/DAY 4- 1000 MG/KG/DAY

None significantly different from control group

TABLE 4
PUBERTAL ASSAY OF SP 7077 VARIANT (TS03005) IN JUV. FEMALE RATS
SUMMARY OF BODY WEIGHTS [G]

FEMALES

GROUP :		1	2	3	4
DAY 30	MEAN	76.5	79.0	76.6	74.2
	S.D.	7.32	10.17	8.86	8.61
	N	15	15	15	15
DAY 31	MEAN	81.8	84.9	82.6	80.2
	S.D.	7.20	10.60	8.91	8.42
	N	15	15	15	15
DAY 32	MEAN	88.1	90.8	89.1	86.0
	S.D.	8.22	11.16	10.28	9.42
	N	15	15	15	15
DAY 33	MEAN	94.7	97.0	94.7	92.0
	S.D.	8.67	11.58	9.95	9.58
	N	15	15	15	15
DAY 34	MEAN	99.6	103.2	101.8	98.3
	S.D.	8.77	12.40	10.53	9.86
	N	15	15	15	15
DAY 35	MEAN	105.2	109.2	107.9	104.5
	S.D.	9.05	12.48	10.22	9.25
	N	15	15	15	15
DAY 36	MEAN	109.5	114.4	113.7	109.9
	S.D.	8.82	13.02	10.82	9.18
	N	15	15	15	15
DAY 37	MEAN	114.7	119.7	119.4	116.3
	S.D.	8.90	13.48	11.14	8.90
	N	15	15	15	15

1- 0 MG/KG/DAY 2- 150 MG/KG/DAY 3- 500 MG/KG/DAY 4- 1000 MG/KG/DAY

None significantly different from control group

TABLE 4
PUBERTAL ASSAY OF SP 7077 VARIANT (TS03005) IN JUV. FEMALE RATS
SUMMARY OF BODY WEIGHTS [G]

FEMALES

GROUP :		1	2	3	4
DAY 38	MEAN	120.4	126.0	125.8	122.0
	S.D.	9.49	13.32	10.79	9.08
	N	15	15	15	15
DAY 39	MEAN	125.7	130.6	131.6	127.3
	S.D.	10.48	13.75	11.75	8.84
	N	15	15	15	15
DAY 40	MEAN	130.4	136.1	137.5	135.0
	S.D.	10.67	13.01	11.72	9.99
	N	15	15	15	15
DAY 41	MEAN	132.9	140.2	142.5	138.5
	S.D.	10.50	13.58	11.77	10.04
	N	15	15	15	15
DAY 42	MEAN	136.3	145.0	145.9	142.2
	S.D.	11.43	14.34	10.84	9.41
	N	15	15	15	15

1- 0 MG/KG/DAY 2- 150 MG/KG/DAY 3- 500 MG/KG/DAY 4- 1000 MG/KG/DAY

None significantly different from control group

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TABLE 5
PUBERTAL ASSAY OF SP 7077 VARIANT (TS03005) IN JUV. FEMALE RATS
SUMMARY OF BODY WEIGHT CHANGES [G]

FEMALES

GROUP :		1	2	3	4
DAY 22- 23	MEAN	4.6	5.6	3.8	2.1**
	S.D.	0.83	1.71	1.25	2.63
	N	15	15	15	15
DAY 23- 24	MEAN	4.8	4.8	4.6	5.4
	S.D.	1.07	0.95	0.77	2.32
	N	15	15	15	15
DAY 24- 25	MEAN	4.3	4.6	4.8	4.7
	S.D.	0.41	0.78	1.08	0.87
	N	15	15	15	15
DAY 25- 26	MEAN	5.4	5.5	4.7	4.1**
	S.D.	0.78	1.41	0.86	0.77
	N	15	15	15	15
DAY 26- 27	MEAN	5.3	5.4	5.9	5.7
	S.D.	0.60	0.91	0.89	0.70
	N	15	15	15	15
DAY 27- 28	MEAN	4.3	5.2	4.9	4.9
	S.D.	0.97	0.86	0.95	0.75
	N	15	15	15	15
DAY 28- 29	MEAN	4.9	4.8	4.9	4.4
	S.D.	0.89	0.96	0.85	1.87
	N	15	15	15	15
DAY 29- 30	MEAN	5.2	5.7	4.9	5.2
	S.D.	1.84	0.94	1.41	2.04
	N	15	15	15	15

1- 0 MG/KG/DAY 2- 150 MG/KG/DAY 3- 500 MG/KG/DAY 4- 1000 MG/KG/DAY

** = Significantly different from the control group at 0.01 using Dunnett's test
MEAN DIFFERENCES CALCULATED FROM INDIVIDUAL DIFFERENCES

TABLE 5
PUBERTAL ASSAY OF SP 7077 VARIANT (TS03005) IN JUV. FEMALE RATS
SUMMARY OF BODY WEIGHT CHANGES [G]

FEMALES

GROUP :		1	2	3	4
DAY 30- 31	MEAN	5.3	6.0	6.0	6.0
	S.D.	1.79	1.11	1.13	1.07
	N	15	15	15	15
DAY 31- 32	MEAN	6.3	5.8	6.5	5.8
	S.D.	1.60	1.47	1.96	1.81
	N	15	15	15	15
DAY 32- 33	MEAN	6.7	6.2	5.6	6.1
	S.D.	1.42	1.50	1.20	1.05
	N	15	15	15	15
DAY 33- 34	MEAN	4.9	6.2*	7.2**	6.3*
	S.D.	1.61	1.42	1.34	1.32
	N	15	15	15	15
DAY 34- 35	MEAN	5.6	6.0	6.0	6.2
	S.D.	1.89	0.63	1.56	2.41
	N	15	15	15	15
DAY 35- 36	MEAN	4.3	5.3	5.8	5.5
	S.D.	1.48	1.41	1.68	1.91
	N	15	15	15	15
DAY 36- 37	MEAN	5.2	5.3	5.7	6.3
	S.D.	2.22	1.40	1.40	1.73
	N	15	15	15	15
DAY 37- 38	MEAN	5.7	6.2	6.4	5.8
	S.D.	1.94	1.80	1.85	1.16
	N	15	15	15	15

1- 0 MG/KG/DAY 2- 150 MG/KG/DAY 3- 500 MG/KG/DAY 4- 1000 MG/KG/DAY

* = Significantly different from the control group at 0.05 using Dunnett's test
** = Significantly different from the control group at 0.01 using Dunnett's test
MEAN DIFFERENCES CALCULATED FROM INDIVIDUAL DIFFERENCES

TABLE 5
PUBERTAL ASSAY OF SP 7077 VARIANT (TS03005) IN JUV. FEMALE RATS
SUMMARY OF BODY WEIGHT CHANGES [G]

FEMALES

GROUP :		1	2	3	4
DAY 38- 39	MEAN	5.3	4.6	5.8	5.3
	S.D.	2.27	1.65	2.25	1.66
	N	15	15	15	15
DAY 39- 40	MEAN	4.8	5.6	5.9	7.6**
	S.D.	1.70	2.29	2.66	1.93
	N	15	15	15	15
DAY 40- 41	MEAN	2.5	4.1	5.0	3.6
	S.D.	2.58	2.65	2.47	2.25
	N	15	15	15	15
DAY 41- 42	MEAN	3.4	4.8	3.4	3.7
	S.D.	2.99	2.54	3.52	2.55
	N	15	15	15	15
DAY 22- 42	MEAN	98.6	107.5*	107.8*	104.4
	S.D.	10.16	9.89	8.11	6.81
	N	15	15	15	15

1- 0 MG/KG/DAY 2- 150 MG/KG/DAY 3- 500 MG/KG/DAY 4- 1000 MG/KG/DAY

* = Significantly different from the control group at 0.05 using Dunnett's test
** = Significantly different from the control group at 0.01 using Dunnett's test
MEAN DIFFERENCES CALCULATED FROM INDIVIDUAL DIFFERENCES

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04/21/2003

TABLE 6
PUBERTAL ASSAY OF SP 7077 VARIANT (TS03005) IN JUV. FEMALE RATS
SUMMARY OF ANIMAL DEVELOPMENTAL PARAMETERS - VAGINAL PATENCY

FEMALES

GROUP:	1	2	3	4
VAGINAL PATENCY (PND)				
MEAN	34.6	34.7	30.0**	27.9**
S.D.	2.41	2.89	2.07	0.35
N	15	15	15	15
BODY WEIGHT				
MEAN	102.1	105.9	77.4**	64.1**
S.D.	10.94	18.86	12.84	7.93
N	15	15	15	15

1- - 0 MG/KG/DAY 2- 150 MG/KG/DAY 3- 500 MG/KG/DAY 4- 1000 MG/KG/DAY

PND = POSTNATAL DAY
** = Significantly different from control at 0.01 using Dunnett's test

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R: 04/21/2003

TABLE 7
PUBERTAL ASSAY OF SP 7077 VARIANT (TS03005) IN JUV. FEMALE RATS
SUMMARY OF ESTROUS CYCLE DATA

---- FEMALES ----

GROUP:	0 MG/KG/DAY	150 MG/KG/DAY	500 MG/KG/DAY	1000 MG/KG/DAY
ESTROUS CYCLE LENGTH (DAYS)				
MEAN	6.1	5.5	5.4	6.0
S.D.	0.90	0.84	0.99	0.82
N	7	6	9	4
MEAN AGE AT FIRST OCCURRENCE OF ESTRUS (DAYS)				
MEAN	35.1	36.1	34.1	35.3
S.D.	2.97	3.23	2.09	2.84
N	15	15	15	12

None significantly different from control group

PCYCv5.06
04/21/2003
R: 05/23/2003

TABLE 8
PUBERTAL ASSAY OF SP 7077 VARIANT (TS03005) IN JUV. FEMALE RATS
SUMMARY OF ORGAN WEIGHTS [G]

GROUP:	0 MG/KG/DAY	150 MG/KG/DAY	500 MG/KG/DAY	1000 MG/KG/DAY
	----- F E M A L E -----			
UTERUS- WET (G)				
MEAN	0.3166	0.3207	0.3772	0.2830
S.D.	0.11778	0.15013	0.18920	0.11914
N	15	15	15	15
UTERUS- BLOT. (G)				
MEAN	0.2764	0.2597	0.2948	0.2394
S.D.	0.06397	0.06835	0.08828	0.08138
N	15	15	15	15
LUMINAL FLUID (G)				
MEAN	0.0401	0.0610	0.0824	0.0436
S.D.	0.06831	0.09637	0.13405	0.05509
N	15	15	15	15
LIVER (G)				
MEAN	6.69	7.27	8.07**	8.29**
S.D.	1.283	1.167	1.264	1.065
N	15	15	15	15
OVARIES (G)				
MEAN	0.0796	0.0786	0.0767	0.0674
S.D.	0.01251	0.01436	0.01401	0.01486
N	15	15	15	15

** = Significantly different from the control group at 0.01 using Dunnett's test

TABLE 8
PUBERTAL ASSAY OF SP 7077 VARIANT (TS03005) IN JUV. FEMALE RATS
SUMMARY OF ORGAN WEIGHTS [G]

GROUP:	0 MG/KG/DAY	----- F E M A L E ----- 150 MG/KG/DAY	500 MG/KG/DAY	1000 MG/KG/DAY
ADRENAL GLANDS (G)				
MEAN	0.0352	0.0359	0.0367	0.0376
S.D.	0.00480	0.00434	0.00514	0.00695
N	15	15	15	15
PITUITARY (G)				
MEAN	0.0080	0.0080	0.0084	0.0076
S.D.	0.00108	0.00121	0.00160	0.00107
N	15	15	15	15

None significantly different from control group

POFBSTv5.02
04/21/2003
R: 04/21/2003

TABLE 9
PUBERTAL ASSAY OF SP 7077 VARIANT (TS03005) IN JUV. FEMALE RATS
SUMMARY OF ORGAN WTS. RELATIVE TO FINAL BODY WTS. [G/100 G]

	----- F E M A L E -----			
GROUP:	0 MG/KG/DAY	150 MG/KG/DAY	500 MG/KG/DAY	1000 MG/KG/DAY
FINAL BODY WT (G)				
MEAN	136.	145.	146.	142.
S. D.	11.5	14.3	10.8	9.4
N	15	15	15	15
UTERUS- WET				
MEAN	0.234	0.222	0.262	0.199
S. D.	0.0971	0.1033	0.1397	0.0852
N	15	15	15	15
UTERUS- BLOT.				
MEAN	0.203	0.180	0.204	0.168
S. D.	0.0473	0.0488	0.0650	0.0555
N	15	15	15	15
LIVER				
MEAN	4.882	4.991	5.513**	5.811**
S. D.	0.6416	0.4373	0.5611	0.4952
N	15	15	15	15
OVARIES				
MEAN	0.059	0.054	0.052	0.047**
S. D.	0.0082	0.0083	0.0078	0.0087
N	15	15	15	15

** = Significantly different from the control group at 0.01 using Dunnett's test

TABLE 9
PUBERTAL ASSAY OF SP 7077 VARIANT (TS03005) IN JUV. FEMALE RATS
SUMMARY OF ORGAN WTS. RELATIVE TO FINAL BODY WTS. [G/100 G]

	----- F E M A L E -----			
GROUP:	0 MG/KG/DAY	150 MG/KG/DAY	500 MG/KG/DAY	1000 MG/KG/DAY
ADRENAL GLANDS				
MEAN	0.026	0.025	0.025	0.026
S. D.	0.0044	0.0024	0.0028	0.0041
N	15	15	15	15
PITUITARY				
MEAN	0.006	0.006	0.006	0.005
S. D.	0.0008	0.0008	0.0011	0.0008
N	15	15	15	15

None significantly different from control group

POFBSTv5.02
04/21/2003
R: 04/21/2003

TABLE 10 (DAILY OBSERVATIONS)
PUBERTAL ASSAY OF SP 7077 VARIANT (TS03005) IN JUV. FEMALE RATS
INDIVIDUAL CLINICAL OBSERVATIONS [POSITIVE FINDINGS ONLY]

TABLE RANGE: 03-18-03 TO 04-07-03

ANIMAL	SEX	GROUP	CATEGORY	DATE	TIME	GRADE	OBSERVATIONS
22595-06	F	0 MG/KG/DAY	DISPOSITION	04-07-03	8:54	P	SCHEDULED EUTHANASIA
22595-08	F	0 MG/KG/DAY	DISPOSITION	04-07-03	8:54	P	SCHEDULED EUTHANASIA
22595-09	F	0 MG/KG/DAY	DISPOSITION	04-07-03	8:55	P	SCHEDULED EUTHANASIA
22597-02	F	0 MG/KG/DAY	DISPOSITION	04-07-03	8:55	P	SCHEDULED EUTHANASIA
22597-06	F	0 MG/KG/DAY	DISPOSITION	04-07-03	8:55	P	SCHEDULED EUTHANASIA
22597-09	F	0 MG/KG/DAY	DISPOSITION	04-07-03	8:55	P	SCHEDULED EUTHANASIA
22598-06	F	0 MG/KG/DAY	DISPOSITION	04-07-03	8:55	P	SCHEDULED EUTHANASIA
22598-09	F	0 MG/KG/DAY	DISPOSITION	04-07-03	8:55	P	SCHEDULED EUTHANASIA
22599-14	F	0 MG/KG/DAY	DISPOSITION	04-07-03	8:55	P	SCHEDULED EUTHANASIA
22601-09	F	0 MG/KG/DAY	DISPOSITION	04-07-03	8:55	P	SCHEDULED EUTHANASIA
22602-02	F	0 MG/KG/DAY	DISPOSITION	04-07-03	8:55	P	SCHEDULED EUTHANASIA
22602-08	F	0 MG/KG/DAY	DISPOSITION	04-07-03	8:55	P	SCHEDULED EUTHANASIA
22602-11	F	0 MG/KG/DAY	DISPOSITION	04-07-03	8:55	P	SCHEDULED EUTHANASIA
22602-12	F	0 MG/KG/DAY	DISPOSITION	04-07-03	8:55	P	SCHEDULED EUTHANASIA
22602-14	F	0 MG/KG/DAY	DISPOSITION	04-07-03	8:56	P	SCHEDULED EUTHANASIA
22595-01	F	150 MG/KG/DAY	DISPOSITION	04-07-03	8:56	P	SCHEDULED EUTHANASIA
22595-01	F	150 MG/KG/DAY	BODY/INTEGUMENT	04-01-03	8:26	1	HAIR LOSS RIGHT DORSAL THORACIC AREA
				04-02-03	8:35	1	HAIR LOSS RIGHT DORSAL THORACIC AREA
				04-03-03	8:17	1	HAIR LOSS RIGHT DORSAL THORACIC AREA
				04-04-03	7:36	1	HAIR LOSS RIGHT DORSAL THORACIC AREA
22595-07	F	150 MG/KG/DAY	DISPOSITION	04-07-03	8:56	P	SCHEDULED EUTHANASIA
22597-05	F	150 MG/KG/DAY	DISPOSITION	04-07-03	8:56	P	SCHEDULED EUTHANASIA
22597-07	F	150 MG/KG/DAY	DISPOSITION	04-07-03	8:56	P	SCHEDULED EUTHANASIA
22597-10	F	150 MG/KG/DAY	DISPOSITION	04-07-03	8:56	P	SCHEDULED EUTHANASIA
22598-01	F	150 MG/KG/DAY	DISPOSITION	04-07-03	8:56	P	SCHEDULED EUTHANASIA
22598-02	F	150 MG/KG/DAY	DISPOSITION	04-07-03	8:56	P	SCHEDULED EUTHANASIA
22598-12	F	150 MG/KG/DAY	DISPOSITION	04-07-03	8:56	P	SCHEDULED EUTHANASIA
22599-12	F	150 MG/KG/DAY	DISPOSITION	04-07-03	8:56	P	SCHEDULED EUTHANASIA
22600-05	F	150 MG/KG/DAY	DISPOSITION	04-07-03	8:56	P	SCHEDULED EUTHANASIA

GRADE CODE: 1 - SLIGHT 2 - MODERATE 3 - SEVERE P - PRESENT

TABLE 10 (DAILY OBSERVATIONS)
PUBERTAL ASSAY OF SP 7077 VARIANT (TS03005) IN JUV. FEMALE RATS
INDIVIDUAL CLINICAL OBSERVATIONS [POSITIVE FINDINGS ONLY]

TABLE RANGE: 03-18-03 TO 04-07-03

ANIMAL	SEX	GROUP	CATEGORY	DATE	TIME	GRADE	OBSERVATIONS
22601-13	F	150 MG/KG/DAY	DISPOSITION	04-07-03	8:56	P	SCHEDULED EUTHANASIA
22602-03	F	150 MG/KG/DAY	DISPOSITION	04-07-03	8:57	P	SCHEDULED EUTHANASIA
22602-07	F	150 MG/KG/DAY	DISPOSITION	04-07-03	8:57	P	SCHEDULED EUTHANASIA
22602-09	F	150 MG/KG/DAY	DISPOSITION	04-07-03	8:57	P	SCHEDULED EUTHANASIA
22602-13	F	150 MG/KG/DAY	DISPOSITION	04-07-03	8:57	P	SCHEDULED EUTHANASIA
22595-04	F	500 MG/KG/DAY	DISPOSITION	04-07-03	8:57	P	SCHEDULED EUTHANASIA
22595-04	F	500 MG/KG/DAY	BODY/INTEGUMENT	03-28-03	6:43	1	HAIR LOSS DORSAL HEAD
				03-29-03	6:47	1	HAIR LOSS DORSAL HEAD
				03-30-03	6:39	1	HAIR LOSS DORSAL HEAD
				03-31-03	7:44	1	HAIR LOSS DORSAL HEAD
				04-01-03	8:31	2	HAIR LOSS DORSAL HEAD
				04-02-03	8:38	2	HAIR LOSS DORSAL HEAD
				04-03-03	8:21	2	HAIR LOSS DORSAL HEAD
				04-04-03	7:40	1	HAIR LOSS DORSAL HEAD
				04-06-03	6:36	1	HAIR LOSS DORSAL HEAD
				04-06-03	6:37	1	DRIED RED MATERIAL DORSAL HEAD
				04-07-03	7:29	3	HAIR LOSS DORSAL HEAD
				04-07-03	7:29	2	DRIED RED MATERIAL DORSAL HEAD
22595-10	F	500 MG/KG/DAY	DISPOSITION	04-07-03	8:57	P	SCHEDULED EUTHANASIA
22595-14	F	500 MG/KG/DAY	DISPOSITION	04-07-03	8:57	P	SCHEDULED EUTHANASIA
22597-01	F	500 MG/KG/DAY	DISPOSITION	04-07-03	8:57	P	SCHEDULED EUTHANASIA
22597-03	F	500 MG/KG/DAY	DISPOSITION	04-07-03	8:57	P	SCHEDULED EUTHANASIA
22597-08	F	500 MG/KG/DAY	DISPOSITION	04-07-03	8:57	P	SCHEDULED EUTHANASIA
22597-14	F	500 MG/KG/DAY	DISPOSITION	04-07-03	8:57	P	SCHEDULED EUTHANASIA
22598-11	F	500 MG/KG/DAY	DISPOSITION	04-07-03	8:57	P	SCHEDULED EUTHANASIA
22599-13	F	500 MG/KG/DAY	DISPOSITION	04-07-03	8:58	P	SCHEDULED EUTHANASIA
22600-02	F	500 MG/KG/DAY	DISPOSITION	04-07-03	8:58	P	SCHEDULED EUTHANASIA
22601-11	F	500 MG/KG/DAY	DISPOSITION	04-07-03	8:58	P	SCHEDULED EUTHANASIA
22601-14	F	500 MG/KG/DAY	DISPOSITION	04-07-03	8:58	P	SCHEDULED EUTHANASIA

GRADE CODE: 1 - SLIGHT 2 - MODERATE 3 - SEVERE P - PRESENT

TABLE 10 (DAILY OBSERVATIONS)
PUBERTAL ASSAY OF SP 7077 VARIANT (TS03005) IN JUV. FEMALE RATS
INDIVIDUAL CLINICAL OBSERVATIONS [POSITIVE FINDINGS ONLY]

TABLE RANGE: 03-18-03 TO 04-07-03

ANIMAL	SEX	GROUP	CATEGORY	DATE	TIME	GRADE	OBSERVATIONS
22602-05	F	500 MG/KG/DAY	DISPOSITION	04-07-03	8:58	P	SCHEDULED EUTHANASIA
22602-06	F	500 MG/KG/DAY	DISPOSITION	04-07-03	8:58	P	SCHEDULED EUTHANASIA
22602-10	F	500 MG/KG/DAY	DISPOSITION	04-07-03	8:58	P	SCHEDULED EUTHANASIA
22595-03	F	1000 MG/KG/DAY	DISPOSITION	04-07-03	8:58	P	SCHEDULED EUTHANASIA
22595-05	F	1000 MG/KG/DAY	DISPOSITION	04-07-03	8:58	P	SCHEDULED EUTHANASIA
22595-13	F	1000 MG/KG/DAY	DISPOSITION	04-07-03	8:58	P	SCHEDULED EUTHANASIA
22597-04	F	1000 MG/KG/DAY	DISPOSITION	04-07-03	8:58	P	SCHEDULED EUTHANASIA
22597-11	F	1000 MG/KG/DAY	DISPOSITION	04-07-03	8:58	P	SCHEDULED EUTHANASIA
22597-12	F	1000 MG/KG/DAY	DISPOSITION	04-07-03	8:59	P	SCHEDULED EUTHANASIA
22597-13	F	1000 MG/KG/DAY	DISPOSITION	04-07-03	8:59	P	SCHEDULED EUTHANASIA
22598-04	F	1000 MG/KG/DAY	DISPOSITION	04-07-03	8:59	P	SCHEDULED EUTHANASIA
22598-04	F	1000 MG/KG/DAY	BODY/INTEGUMENT	04-03-03	8:27	1	HAIR LOSS RIGHT DORSAL THORACIC AREA
22598-10	F	1000 MG/KG/DAY	DISPOSITION	04-07-03	8:59	P	SCHEDULED EUTHANASIA
22599-01	F	1000 MG/KG/DAY	DISPOSITION	04-07-03	8:59	P	SCHEDULED EUTHANASIA
22599-04	F	1000 MG/KG/DAY	DISPOSITION	04-07-03	8:59	P	SCHEDULED EUTHANASIA
22600-09	F	1000 MG/KG/DAY	DISPOSITION	04-07-03	8:59	P	SCHEDULED EUTHANASIA
22601-08	F	1000 MG/KG/DAY	DISPOSITION	04-07-03	8:59	P	SCHEDULED EUTHANASIA
22602-01	F	1000 MG/KG/DAY	DISPOSITION	04-07-03	8:59	P	SCHEDULED EUTHANASIA
22602-04	F	1000 MG/KG/DAY	DISPOSITION	04-07-03	8:59	P	SCHEDULED EUTHANASIA

GRADE CODE: 1 - SLIGHT 2 - MODERATE 3 - SEVERE P - PRESENT

TABLE 11 (1-HOUR POST-DOSING)
PUBERTAL ASSAY OF SP 7077 VARIANT (TS03005) IN JUV. FEMALE RATS
INDIVIDUAL CLINICAL OBSERVATIONS

TABLE RANGE: 03-18-03 TO 04-06-03

ANIMAL	SEX	GROUP	CATEGORY	DATE	TIME	GRADE	OBSERVATIONS
22597-14	F	500 MG/KG/DAY	ORAL/DENTAL	04-05-03	11:56	1	SALIVATION
22598-11	F	500 MG/KG/DAY	ORAL/DENTAL	04-06-03	11:39	1	SALIVATION
22595-03	F	1000 MG/KG/DAY	ORAL/DENTAL	03-31-03	11:54	1	SALIVATION
22595-05	F	1000 MG/KG/DAY	ORAL/DENTAL	04-01-03	11:46	2	SALIVATION
				04-02-03	11:44	2	SALIVATION
				04-05-03	11:58	1	SALIVATION
				04-06-03	11:41	1	SALIVATION
22597-12	F	1000 MG/KG/DAY	ORAL/DENTAL	04-01-03	11:47	1	SALIVATION
				04-02-03	11:44	2	SALIVATION
				04-03-03	11:51	2	SALIVATION
				04-04-03	11:37	1	SALIVATION
				04-05-03	11:58	3	SALIVATION
				04-06-03	11:40	2	SALIVATION
22597-13	F	1000 MG/KG/DAY	ORAL/DENTAL	03-30-03	11:10	1	SALIVATION
				04-01-03	11:47	1	SALIVATION
				04-02-03	11:45	1	SALIVATION
				04-04-03	11:38	1	SALIVATION
				04-05-03	11:59	1	SALIVATION
22598-04	F	1000 MG/KG/DAY	ORAL/DENTAL	04-03-03	11:51	1	SALIVATION
22600-09	F	1000 MG/KG/DAY	ORAL/DENTAL	03-31-03	11:55	1	SALIVATION
				04-02-03	11:46	2	SALIVATION
				04-03-03	11:52	2	SALIVATION
22602-01	F	1000 MG/KG/DAY	ORAL/DENTAL	03-30-03	11:10	1	SALIVATION
				04-02-03	11:46	1	SALIVATION
				04-03-03	11:53	1	SALIVATION

GRADE CODE: 1 - SLIGHT 2 - MODERATE 3 - SEVERE P - PRESENT

TABLE 12
PUBERTAL ASSAY OF SP 7077 VARIANT (TS03005) IN JUV. FEMALE RATS
INDIVIDUAL BODY WEIGHTS [G]

FEMALES

DAY	22	23	24	25	26	27	28	29	30	31
ANIMALS FROM GROUP 1: 0 MG/KG/DAY										
22595-06	45.1	49.2	53.7	58.3	62.4	67.4	71.9	76.3	81.0	85.6
22595-08	40.0	45.4	49.6	54.0	59.7	66.2	68.8	74.6	78.2	84.0
22595-09	41.1	47.8	54.6	58.6	65.2	71.6	76.9	83.1	91.3	95.4
22597-02	42.3	46.8	52.2	56.2	62.2	67.0	72.1	76.3	82.5	87.9
22597-06	38.7	43.1	49.1	53.3	58.8	63.8	67.8	71.1	77.0	81.2
22597-09	44.5	48.4	54.9	58.7	65.1	70.9	75.2	80.6	86.4	92.3
22598-06	43.2	47.1	51.4	56.0	61.1	65.9	70.7	77.0	83.2	87.7
22598-09	35.4	40.7	45.3	50.0	56.3	61.9	66.5	70.7	77.2	81.5
22599-14	29.0	34.0	37.1	41.9	47.5	52.4	55.8	61.4	66.3	70.7
22601-09	41.4	46.0	49.8	53.8	59.3	63.8	67.0	71.3	75.1	80.6
22602-02	31.2	34.4	39.3	42.6	47.8	53.5	58.6	62.6	68.7	73.2
22602-08	29.6	34.1	38.1	42.7	48.1	53.2	59.7	64.0	68.6	75.0
22602-11	32.3	36.4	40.5	45.1	49.9	54.7	58.2	62.9	69.5	74.4
22602-12	35.8	40.1	44.5	48.7	52.5	57.7	61.7	66.5	71.9	75.5
22602-14	35.8	40.9	46.9	51.2	56.4	61.4	65.5	71.1	71.2	82.3
MEAN	37.7	42.3	47.1	51.4	56.8	62.1	66.4	71.3	76.5	81.8
S. D.	5.41	5.51	6.08	6.01	6.25	6.43	6.47	6.76	7.32	7.20
N	15	15	15	15	15	15	15	15	15	15

TABLE 12
PUBERTAL ASSAY OF SP 7077 VARIANT (TS03005) IN JUV. FEMALE RATS
INDIVIDUAL BODY WEIGHTS [G]

FEMALES

DAY	32	33	34	35	36	37	38	39	40	41
ANIMALS FROM GROUP 1: 0 MG/KG/DAY										
22595-06	90.8	96.9	100.4	107.1	109.3	115.1	120.7	125.4	130.1	133.0
22595-08	89.3	95.8	100.1	101.9	107.0	111.6	116.3	118.8	122.9	127.0
22595-09	105.2	110.9	118.1	123.4	128.8	135.4	141.8	149.1	154.6	158.5
22597-02	93.8	102.4	105.8	112.2	116.2	122.6	126.6	136.4	140.4	141.5
22597-06	87.0	93.1	100.5	103.9	109.8	116.7	121.7	128.9	132.3	136.9
22597-09	99.8	108.1	113.2	118.6	123.1	127.5	133.5	139.6	142.3	146.8
22598-06	95.1	101.6	104.5	114.5	115.8	115.0	125.9	130.2	136.0	134.7
22598-09	89.8	98.2	104.5	109.8	112.2	119.9	125.9	133.4	139.7	136.0
22599-14	76.9	81.4	86.7	94.4	98.6	106.4	110.8	115.5	123.3	125.4
22601-09	85.4	91.1	93.2	98.6	102.9	106.0	108.9	113.0	116.4	118.4
22602-02	78.2	85.0	89.3	94.4	99.3	105.9	112.5	116.9	122.6	125.5
22602-08	79.1	88.3	94.3	98.4	105.0	111.0	115.1	119.7	123.7	123.5
22602-11	78.8	84.0	90.5	95.0	98.4	103.1	107.7	114.6	116.7	121.5
22602-12	83.2	88.3	93.6	99.2	105.0	108.2	115.1	119.4	123.6	129.4
22602-14	88.7	96.1	99.6	106.2	111.2	115.5	123.4	123.9	131.7	135.2
MEAN	88.1	94.7	99.6	105.2	109.5	114.7	120.4	125.7	130.4	132.9
S.D.	8.22	8.67	8.77	9.05	8.82	8.90	9.49	10.48	10.67	10.50
N	15	15	15	15	15	15	15	15	15	15

TABLE 12
PUBERTAL ASSAY OF SP 7077 VARIANT (TS03005) IN JUV. FEMALE RATS
INDIVIDUAL BODY WEIGHTS [G]

FEMALES

DAY 42

ANIMALS FROM GROUP 1:	0 MG/KG/DAY	
22595-06	138.3	EUTH DAY 42
22595-08	129.6	EUTH DAY 42
22595-09	163.2	EUTH DAY 42
22597-02	148.0	EUTH DAY 42
22597-06	137.9	EUTH DAY 42
22597-09	149.7	EUTH DAY 42
22598-06	130.5	EUTH DAY 42
22598-09	143.5	EUTH DAY 42
22599-14	126.2	EUTH DAY 42
22601-09	121.2	EUTH DAY 42
22602-02	127.2	EUTH DAY 42
22602-08	129.3	EUTH DAY 42
22602-11	124.3	EUTH DAY 42
22602-12	132.8	EUTH DAY 42
22602-14	142.2	EUTH DAY 42
MEAN	136.3	
S.D.	11.43	
N	15	

TABLE 12
PUBERTAL ASSAY OF SP 7077 VARIANT (TS03005) IN JUV. FEMALE RATS
INDIVIDUAL BODY WEIGHTS [G]

	FEMALES									
DAY	22	23	24	25	26	27	28	29	30	31
ANIMALS FROM GROUP 2: 150 MG/KG/DAY										
22595-01	38.4	45.1	50.4	55.0	60.1	67.2	71.7	76.0	83.2	88.4
22595-07	46.6	51.6	57.2	61.0	67.6	72.2	78.7	83.2	87.8	94.4
22597-05	37.1	43.1	47.0	50.8	58.1	61.5	67.2	71.4	76.8	83.5
22597-07	44.9	50.5	54.2	60.1	66.8	73.3	77.0	83.6	90.2	97.3
22597-10	37.9	44.9	49.3	54.3	59.7	65.3	71.2	75.2	81.5	87.2
22598-01	39.3	48.5	52.6	56.1	63.6	69.6	75.5	81.1	85.5	94.1
22598-02	49.6	54.5	59.5	65.3	70.8	76.9	82.5	87.4	94.3	100.5
22598-12	39.2	45.7	51.1	55.2	59.1	64.9	70.7	73.6	80.4	85.3
22599-12	26.2	28.7	33.9	37.6	40.4	45.3	50.1	54.4	60.5	67.3
22600-05	28.1	32.6	38.8	42.7	47.5	52.9	57.3	63.0	67.7	73.3
22601-13	43.3	51.5	57.4	62.5	70.1	76.4	81.1	87.4	92.7	98.9
22602-03	26.0	30.4	35.8	41.1	46.7	51.9	57.2	61.5	66.8	72.2
22602-07	35.0	39.5	44.1	49.1	53.6	58.6	64.7	69.6	74.1	78.6
22602-09	36.8	40.9	43.5	48.0	52.4	57.6	61.4	65.6	71.3	75.6
22602-13	33.8	38.6	43.5	48.7	53.2	57.8	62.4	67.0	72.0	77.5
MEAN	37.5	43.1	47.9	52.5	58.0	63.4	68.6	73.3	79.0	84.9
S.D.	7.04	7.96	7.89	8.11	9.03	9.44	9.63	9.97	10.17	10.60
N	15	15	15	15	15	15	15	15	15	15

TABLE 12
PUBERTAL ASSAY OF SP 7077 VARIANT (TS03005) IN JUV. FEMALE RATS
INDIVIDUAL BODY WEIGHTS [G]

FEMALES

DAY	32	33	34	35	36	37	38	39	40	41
ANIMALS FROM GROUP 2: 150 MG/KG/DAY										
22595-01	94.8	102.4	109.8	116.2	121.9	129.0	138.1	143.1	150.2	154.5
22595-07	97.7	106.0	111.4	116.5	124.1	128.5	131.7	136.6	142.8	148.3
22597-05	89.2	95.9	103.1	108.2	111.6	118.2	126.3	127.4	134.8	141.2
22597-07	105.9	111.4	120.3	127.1	133.5	140.5	147.6	151.6	151.7	157.0
22597-10	94.1	99.6	107.7	113.8	120.4	124.6	131.5	136.4	141.9	151.4
22598-01	100.4	110.0	116.9	122.9	127.3	134.0	140.4	146.4	150.3	152.9
22598-02	105.5	110.5	116.8	122.8	128.9	133.0	137.6	142.1	147.7	152.1
22598-12	89.8	95.8	100.9	107.4	111.3	116.3	121.7	127.1	135.0	136.0
22599-12	71.7	77.3	83.5	89.4	93.5	100.7	104.7	105.8	115.3	120.6
22600-05	79.1	85.5	91.9	97.2	102.2	106.2	115.0	120.8	128.0	131.9
22601-13	106.6	112.7	119.2	124.9	129.4	135.6	139.1	145.7	151.7	152.8
22602-03	77.4	84.1	87.5	93.4	98.6	101.8	108.6	113.3	116.2	118.1
22602-07	86.1	90.6	96.4	103.9	111.2	116.0	122.7	126.6	130.4	135.6
22602-09	79.6	85.8	90.1	95.8	98.6	103.8	110.6	117.3	122.9	121.7
22602-13	83.6	87.1	92.4	98.3	104.1	107.6	113.8	118.6	123.3	129.3
MEAN	90.8	97.0	103.2	109.2	114.4	119.7	126.0	130.6	136.1	140.2
S.D.	11.16	11.58	12.40	12.48	13.02	13.48	13.32	13.75	13.01	13.58
N	15	15	15	15	15	15	15	15	15	15

TABLE 12
PUBERTAL ASSAY OF SP 7077 VARIANT (TS03005) IN JUV. FEMALE RATS
INDIVIDUAL BODY WEIGHTS [G]

FEMALES

DAY 42

ANIMALS FROM GROUP 2: 150 MG/KG/DAY

22595-01	162.0	EUTH DAY 42
22595-07	154.5	EUTH DAY 42
22597-05	146.0	EUTH DAY 42
22597-07	162.5	EUTH DAY 42
22597-10	153.9	EUTH DAY 42
22598-01	162.7	EUTH DAY 42
22598-02	154.0	EUTH DAY 42
22598-12	139.3	EUTH DAY 42
22599-12	126.8	EUTH DAY 42
22600-05	130.7	EUTH DAY 42
22601-13	158.2	EUTH DAY 42
22602-03	122.7	EUTH DAY 42
22602-07	141.3	EUTH DAY 42
22602-09	126.6	EUTH DAY 42
22602-13	133.7	EUTH DAY 42
MEAN	145.0	
S.D.	14.34	
N	15	

TABLE 12
PUBERTAL ASSAY OF SP 7077 VARIANT (TS03005) IN JUV. FEMALE RATS
INDIVIDUAL BODY WEIGHTS [G]

FEMALES

DAY	22	23	24	25	26	27	28	29	30	31
ANIMALS FROM GROUP 3: 500 MG/KG/DAY										
22595-04	45.6	50.3	55.0	62.9	69.3	76.2	81.9	87.8	93.7	100.4
22595-10	40.8	45.2	50.2	55.6	60.9	66.5	71.0	76.3	81.2	87.1
22595-14	47.2	50.8	54.2	59.5	64.3	69.6	74.7	79.4	83.4	90.9
22597-01	38.1	40.2	46.3	51.0	54.2	60.0	65.8	69.5	74.3	78.9
22597-03	39.2	42.7	48.1	53.6	59.1	65.3	69.7	75.1	80.9	85.3
22597-08	41.8	44.7	49.3	54.6	57.6	65.4	72.4	77.0	81.6	87.5
22597-14	39.3	43.0	47.3	51.5	56.2	62.1	65.7	71.2	73.5	80.6
22598-11	40.8	45.7	51.3	55.3	59.5	66.4	70.5	76.9	80.8	87.2
22599-13	29.9	32.9	38.1	42.2	46.9	52.0	55.5	60.9	64.5	71.1
22600-02	27.3	29.2	34.3	37.8	42.6	47.3	52.1	55.9	61.9	67.5
22601-11	41.3	48.4	52.5	57.9	62.4	69.3	73.3	78.3	84.6	90.9
22601-14	42.0	45.4	49.8	54.0	59.5	65.1	70.1	74.9	82.9	87.2
22602-05	32.7	37.1	41.5	45.3	50.2	56.3	61.3	65.2	69.6	75.4
22602-06	32.8	36.6	40.3	44.4	48.5	53.5	59.4	64.3	68.0	76.2
22602-10	31.6	35.3	38.9	43.7	48.2	53.2	58.5	62.0	68.0	73.0
MEAN	38.0	41.8	46.5	51.3	56.0	61.9	66.8	71.6	76.6	82.6
S. D.	5.85	6.43	6.36	7.12	7.39	7.96	8.08	8.55	8.86	8.91
N	15	15	15	15	15	15	15	15	15	15

TABLE 12
PUBERTAL ASSAY OF SP 7077 VARIANT (TS03005) IN JUV. FEMALE RATS
INDIVIDUAL BODY WEIGHTS [G]

	FEMALES									
DAY	32	33	34	35	36	37	38	39	40	41
ANIMALS FROM GROUP 3: 500 MG/KG/DAY										
22595-04	110.7	113.9	124.4	126.8	134.5	142.4	146.5	151.3	159.1	161.1
22595-10	94.6	99.8	106.8	116.0	119.4	127.5	136.3	145.0	152.2	158.9
22595-14	99.3	104.2	109.3	116.6	122.5	127.5	132.6	142.3	143.0	151.1
22597-01	85.6	90.8	96.9	102.1	106.2	111.9	116.6	121.1	126.6	128.3
22597-03	93.5	100.1	107.0	114.4	118.9	122.1	128.4	136.1	135.8	144.2
22597-08	93.0	99.2	107.4	112.9	119.6	125.3	128.2	136.3	144.5	149.5
22597-14	87.3	92.5	99.4	105.4	110.0	116.7	122.7	128.7	134.4	138.2
22598-11	93.6	100.6	107.6	113.6	120.3	126.6	133.0	138.6	143.9	147.5
22599-13	77.7	82.4	90.0	94.3	99.9	105.6	113.1	117.2	123.3	126.3
22600-02	72.8	77.9	85.8	92.3	100.3	104.7	114.1	116.2	125.0	131.0
22601-11	97.2	103.2	111.7	117.6	126.1	130.8	139.7	146.6	152.9	157.0
22601-14	94.3	99.4	106.7	111.4	118.9	124.3	130.8	132.4	140.9	146.1
22602-05	81.7	87.6	92.9	99.4	105.4	110.9	116.9	122.8	129.9	138.4
22602-06	77.7	86.2	92.3	99.2	104.1	108.2	116.0	121.6	128.8	130.3
22602-10	77.5	82.6	89.5	96.0	99.2	106.7	111.9	117.7	121.7	129.5
MEAN	89.1	94.7	101.8	107.9	113.7	119.4	125.8	131.6	137.5	142.5
S.D.	10.28	9.95	10.53	10.22	10.82	11.14	10.79	11.75	11.72	11.77
N	15	15	15	15	15	15	15	15	15	15

TABLE 12
PUBERTAL ASSAY OF SP 7077 VARIANT (TS03005) IN JUV. FEMALE RATS
INDIVIDUAL BODY WEIGHTS [G]

FEMALES

DAY 42

ANIMALS FROM GROUP 3: 500 MG/KG/DAY

22595-04	164.2	EUTH DAY 42
22595-10	159.0	EUTH DAY 42
22595-14	146.6	EUTH DAY 42
22597-01	130.1	EUTH DAY 42
22597-03	147.1	EUTH DAY 42
22597-08	149.7	EUTH DAY 42
22597-14	144.7	EUTH DAY 42
22598-11	147.2	EUTH DAY 42
22599-13	131.4	EUTH DAY 42
22600-02	140.5	EUTH DAY 42
22601-11	164.1	EUTH DAY 42
22601-14	151.0	EUTH DAY 42
22602-05	143.5	EUTH DAY 42
22602-06	135.8	EUTH DAY 42
22602-10	133.1	EUTH DAY 42
MEAN	145.9	
S.D.	10.84	
N	15	

TABLE 12
PUBERTAL ASSAY OF SP 7077 VARIANT (TS03005) IN JUV. FEMALE RATS
INDIVIDUAL BODY WEIGHTS [G]

	FEMALES									
DAY	22	23	24	25	26	27	28	29	30	31
ANIMALS FROM GROUP 4: 1000 MG/KG/DAY										
22595-03	44.4	46.5	51.5	55.1	59.8	64.8	69.6	73.6	79.1	83.7
22595-05	46.2	52.0	56.6	62.0	66.2	71.5	75.5	79.8	86.5	92.4
22595-13	41.5	46.3	51.7	56.3	61.1	67.2	71.2	75.9	81.8	88.0
22597-04	37.2	40.0	44.6	49.3	52.6	58.4	63.4	68.7	72.8	79.4
22597-11	36.3	38.8	44.1	48.3	51.3	57.2	61.6	71.8	71.5	74.6
22597-12	39.5	42.6	45.9	51.3	55.2	61.5	66.1	67.7	77.4	83.7
22597-13	34.3	36.6	39.9	44.7	48.7	53.0	57.6	62.1	66.7	72.2
22598-04	42.1	47.1	50.4	55.1	59.6	65.3	69.1	73.1	78.6	85.1
22598-10	42.9	47.0	51.5	57.5	62.5	68.8	74.2	79.2	85.4	91.9
22599-01	28.2	26.0	36.2	40.0	44.4	50.1	55.8	59.8	64.3	71.1
22599-04	26.1	23.7	33.1	36.7	40.1	45.9	51.5	56.1	60.6	67.9
22600-09	25.4	23.1	32.4	36.7	39.3	44.1	50.0	52.9	58.8	65.6
22601-08	45.0	48.2	51.9	58.2	63.6	69.2	73.1	76.4	82.2	87.6
22602-01	39.6	41.3	45.2	48.6	52.8	60.1	65.2	68.1	73.1	80.0
22602-04	39.0	39.6	44.1	49.2	53.6	59.3	65.3	69.9	74.5	79.9
MEAN	37.8	39.9	45.3	49.9	54.1	59.8	64.6	69.0	74.2	80.2
S.D.	6.70	9.11	7.30	7.79	8.33	8.49	8.00	8.15	8.61	8.42
N	15	15	15	15	15	15	15	15	15	15

TABLE 12
PUBERTAL ASSAY OF SP 7077 VARIANT (TS03005) IN JUV. FEMALE RATS
INDIVIDUAL BODY WEIGHTS [G]

FEMALES

DAY	32	33	34	35	36	37	38	39	40	41
ANIMALS FROM GROUP 4: 1000 MG/KG/DAY										
22595-03	89.3	96.2	102.9	107.2	112.3	114.9	122.1	125.3	132.7	136.7
22595-05	100.4	106.5	112.5	120.5	122.9	129.8	136.2	143.0	151.6	155.6
22595-13	97.1	101.9	110.1	115.1	120.1	128.1	131.6	133.6	144.7	149.2
22597-04	84.6	90.4	96.1	102.4	106.2	113.3	119.8	124.4	132.1	136.0
22597-11	80.9	84.9	91.8	96.4	102.3	106.7	110.3	117.9	123.5	124.9
22597-12	88.5	95.5	103.1	107.8	115.4	121.9	128.4	132.8	144.7	148.3
22597-13	79.3	83.4	91.1	96.3	100.2	108.0	115.2	119.6	126.6	133.2
22598-04	90.2	97.4	103.5	106.3	114.2	119.6	125.5	131.7	139.4	145.7
22598-10	101.2	107.1	114.8	119.0	124.7	130.7	137.1	141.8	149.1	154.2
22599-01	75.2	81.5	88.0	94.0	100.3	106.9	113.2	121.0	124.9	129.0
22599-04	72.7	78.7	84.3	91.4	96.2	103.0	108.5	114.0	120.3	125.4
22600-09	70.5	76.9	83.0	91.6	97.9	107.4	111.8	116.6	124.0	128.3
22601-08	91.6	98.4	102.2	107.4	113.1	117.3	123.0	127.6	134.6	135.8
22602-01	83.6	89.6	93.2	105.7	108.0	115.6	120.9	125.9	133.6	135.3
22602-04	84.6	92.1	98.0	106.3	115.4	120.7	127.1	134.7	142.5	140.3
MEAN	86.0	92.0	98.3	104.5	109.9	116.3	122.0	127.3	135.0	138.5
S.D.	9.42	9.58	9.86	9.25	9.18	8.90	9.08	8.84	9.99	10.04
N	15	15	15	15	15	15	15	15	15	15

TABLE 12
PUBERTAL ASSAY OF SP 7077 VARIANT (TS03005) IN JUV. FEMALE RATS
INDIVIDUAL BODY WEIGHTS [G]

FEMALES

DAY 42

ANIMALS FROM GROUP 4: 1000 MG/KG/DAY

22595-03	138.9	EUTH DAY 42
22595-05	156.4	EUTH DAY 42
22595-13	154.2	EUTH DAY 42
22597-04	136.7	EUTH DAY 42
22597-11	129.4	EUTH DAY 42
22597-12	147.9	EUTH DAY 42
22597-13	136.8	EUTH DAY 42
22598-04	150.1	EUTH DAY 42
22598-10	156.6	EUTH DAY 42
22599-01	134.5	EUTH DAY 42
22599-04	126.9	EUTH DAY 42
22600-09	137.2	EUTH DAY 42
22601-08	141.5	EUTH DAY 42
22602-01	138.7	EUTH DAY 42
22602-04	147.3	EUTH DAY 42
MEAN	142.2	
S.D.	9.41	
N	15	

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TABLE 13
PUBERTAL ASSAY OF SP 7077 VARIANT (TS03005) IN JUV. FEMALE RATS
INDIVIDUAL BODY WEIGHT CHANGES [G]

FEMALES

DAY	22- 23	23- 24	24- 25	25- 26	26- 27	27- 28	28- 29	29- 30	30- 31	31- 32
ANIMALS FROM GROUP 1: 0 MG/KG/DAY										
22595-06	4.1	4.5	4.6	4.1	5.0	4.5	4.4	4.7	4.6	5.2
22595-08	5.4	4.2	4.4	5.7	6.5	2.6	5.8	3.6	5.8	5.3
22595-09	6.7	6.8	4.0	6.6	6.4	5.3	6.2	8.2	4.1	9.8
22597-02	4.5	5.4	4.0	6.0	4.8	5.1	4.2	6.2	5.4	5.9
22597-06	4.4	6.0	4.2	5.5	5.0	4.0	3.3	5.9	4.2	5.8
22597-09	3.9	6.5	3.8	6.4	5.8	4.3	5.4	5.8	5.9	7.5
22598-06	3.9	4.3	4.6	5.1	4.8	4.8	6.3	6.2	4.5	7.4
22598-09	5.3	4.6	4.7	6.3	5.6	4.6	4.2	6.5	4.3	8.3
22599-14	5.0	3.1	4.8	5.6	4.9	3.4	5.6	4.9	4.4	6.2
22601-09	4.6	3.8	4.0	5.5	4.5	3.2	4.3	3.8	5.5	4.8
22602-02	3.2	4.9	3.3	5.2	5.7	5.1	4.0	6.1	4.5	5.0
22602-08	4.5	4.0	4.6	5.4	5.1	6.5	4.3	4.6	6.4	4.1
22602-11	4.1	4.1	4.6	4.8	4.8	3.5	4.7	6.6	4.9	4.4
22602-12	4.3	4.4	4.2	3.8	5.2	4.0	4.8	5.4	3.6	7.7
22602-14	5.1	6.0	4.3	5.2	5.0	4.1	5.6	0.1	11.1	6.4
MEAN	4.6	4.8	4.3	5.4	5.3	4.3	4.9	5.2	5.3	6.3
S.D.	0.83	1.07	0.41	0.78	0.60	0.97	0.89	1.84	1.79	1.60
N	15	15	15	15	15	15	15	15	15	15

TABLE 13
PUBERTAL ASSAY OF SP 7077 VARIANT (TS03005) IN JUV. FEMALE RATS
INDIVIDUAL BODY WEIGHT CHANGES [G]

FEMALES

DAY	32- 33	33- 34	34- 35	35- 36	36- 37	37- 38	38- 39	39- 40	40- 41	41- 42
ANIMALS FROM GROUP 1: 0 MG/KG/DAY										
22595-06	6.1	3.5	6.7	2.2	5.8	5.6	4.7	4.7	2.9	5.3
22595-08	6.5	4.3	1.8	5.1	4.6	4.7	2.5	4.1	4.1	2.6
22595-09	5.7	7.2	5.3	5.4	6.6	6.4	7.3	5.5	3.9	4.7
22597-02	8.6	3.4	6.4	4.0	6.4	4.0	9.8	4.0	1.1	6.5
22597-06	6.1	7.4	3.4	5.9	6.9	5.0	7.2	3.4	4.6	1.0
22597-09	8.3	5.1	5.4	4.5	4.4	6.0	6.1	2.7	4.5	2.9
22598-06	6.5	2.9	10.0	1.3	-0.8	10.9	4.3	5.8	-1.3	-4.2
22598-09	8.4	6.3	5.3	2.4	7.7	6.0	7.5	6.3	-3.7	7.5
22599-14	4.5	5.3	7.7	4.2	7.8	4.4	4.7	7.8	2.1	0.8
22601-09	5.7	2.1	5.4	4.3	3.1	2.9	4.1	3.4	2.0	2.8
22602-02	6.8	4.3	5.1	4.9	6.6	6.6	4.4	5.7	2.9	1.7
22602-08	9.2	6.0	4.1	6.6	6.0	4.1	4.6	4.0	-0.2	5.8
22602-11	5.2	6.5	4.5	3.4	4.7	4.6	6.9	2.1	4.8	2.8
22602-12	5.1	5.3	5.6	5.8	3.2	6.9	4.3	4.2	5.8	3.4
22602-14	7.4	3.5	6.6	5.0	4.3	7.9	0.5	7.8	3.5	7.0
MEAN	6.7	4.9	5.6	4.3	5.2	5.7	5.3	4.8	2.5	3.4
S. D.	1.42	1.61	1.89	1.48	2.22	1.94	2.27	1.70	2.58	2.99
N	15	15	15	15	15	15	15	15	15	15

TABLE 13
PUBERTAL ASSAY OF SP 7077 VARIANT (TS03005) IN JUV. FEMALE RATS
INDIVIDUAL BODY WEIGHT CHANGES [G]

FEMALES

DAY 22- 42

ANIMALS FROM GROUP 1:	0 MG/KG/DAY	
22595-06	93.2	EUTH DAY 42
22595-08	89.6	EUTH DAY 42
22595-09	122.1	EUTH DAY 42
22597-02	105.7	EUTH DAY 42
22597-06	99.2	EUTH DAY 42
22597-09	105.2	EUTH DAY 42
22598-06	87.3	EUTH DAY 42
22598-09	108.1	EUTH DAY 42
22599-14	97.2	EUTH DAY 42
22601-09	79.8	EUTH DAY 42
22602-02	96.0	EUTH DAY 42
22602-08	99.7	EUTH DAY 42
22602-11	92.0	EUTH DAY 42
22602-12	97.0	EUTH DAY 42
22602-14	106.4	EUTH DAY 42
MEAN	98.6	
S.D.	10.16	
N	15	

TABLE 13
PUBERTAL ASSAY OF SP 7077 VARIANT (TS03005) IN JUV. FEMALE RATS
INDIVIDUAL BODY WEIGHT CHANGES [G]

FEMALES

DAY	22- 23	23- 24	24- 25	25- 26	26- 27	27- 28	28- 29	29- 30	30- 31	31- 32
ANIMALS FROM GROUP 2: 150 MG/KG/DAY										
22595-01	6.7	5.3	4.6	5.1	7.1	4.5	4.3	7.2	5.2	6.4
22595-07	5.0	5.6	3.8	6.6	4.6	6.5	4.5	4.6	6.6	3.3
22597-05	6.0	3.9	3.8	7.3	3.4	5.7	4.2	5.4	6.7	5.7
22597-07	5.6	3.7	5.9	6.7	6.5	3.7	6.6	6.6	7.1	8.6
22597-10	7.0	4.4	5.0	5.4	5.6	5.9	4.0	6.3	5.7	6.9
22598-01	9.2	4.1	3.5	7.5	6.0	5.9	5.6	4.4	8.6	6.3
22598-02	4.9	5.0	5.8	5.5	6.1	5.6	4.9	6.9	6.2	5.0
22598-12	6.5	5.4	4.1	3.9	5.8	5.8	2.9	6.8	4.9	4.5
22599-12	2.5	5.2	3.7	2.8	4.9	4.8	4.3	6.1	6.8	4.4
22600-05	4.5	6.2	3.9	4.8	5.4	4.4	5.7	4.7	5.6	5.8
22601-13	8.2	5.9	5.1	7.6	6.3	4.7	6.3	5.3	6.2	7.7
22602-03	4.4	5.4	5.3	5.6	5.2	5.3	4.3	5.3	5.4	5.2
22602-07	4.5	4.6	5.0	4.5	5.0	6.1	4.9	4.5	4.5	7.5
22602-09	4.1	2.6	4.5	4.4	5.2	3.8	4.2	5.7	4.3	4.0
22602-13	4.8	4.9	5.2	4.5	4.6	4.6	4.6	5.0	5.5	6.1
MEAN	5.6	4.8	4.6	5.5	5.4	5.2	4.8	5.7	6.0	5.8
S.D.	1.71	0.95	0.78	1.41	0.91	0.86	0.96	0.94	1.11	1.47
N	15	15	15	15	15	15	15	15	15	15

TABLE 13
PUBERTAL ASSAY OF SP 7077 VARIANT (TS03005) IN JUV. FEMALE RATS
INDIVIDUAL BODY WEIGHT CHANGES [G]

FEMALES

DAY	32- 33	33- 34	34- 35	35- 36	36- 37	37- 38	38- 39	39- 40	40- 41	41- 42
ANIMALS FROM GROUP 2: 150 MG/KG/DAY										
22595-01	7.6	7.4	6.4	5.7	7.1	9.1	5.0	7.1	4.3	7.5
22595-07	8.3	5.4	5.1	7.6	4.4	3.2	4.9	6.2	5.5	6.2
22597-05	6.7	7.2	5.1	3.4	6.6	8.1	1.1	7.4	6.4	4.8
22597-07	5.5	8.9	6.8	6.4	7.0	7.1	4.0	0.1	5.3	5.5
22597-10	5.5	8.1	6.1	6.6	4.2	6.9	4.9	5.5	9.5	2.5
22598-01	9.6	6.9	6.0	4.4	6.7	6.4	6.0	3.9	2.6	9.8
22598-02	5.0	6.3	6.0	6.1	4.1	4.6	4.5	5.6	4.4	1.9
22598-12	6.0	5.1	6.5	3.9	5.0	5.4	5.4	7.9	1.0	3.3
22599-12	5.6	6.2	5.9	4.1	7.2	4.0	1.1	9.5	5.3	6.2
22600-05	6.4	6.4	5.3	5.0	4.0	8.8	5.8	7.2	3.9	-1.2
22601-13	6.1	6.5	5.7	4.5	6.2	3.5	6.6	6.0	1.1	5.4
22602-03	6.7	3.4	5.9	5.2	3.2	6.8	4.7	2.9	1.9	4.6
22602-07	4.5	5.8	7.5	7.3	4.8	6.7	3.9	3.8	5.2	5.7
22602-09	6.2	4.3	5.7	2.8	5.2	6.8	6.7	5.6	-1.2	4.9
22602-13	3.5	5.3	5.9	5.8	3.5	6.2	4.8	4.7	6.0	4.4
MEAN	6.2	6.2	6.0	5.3	5.3	6.2	4.6	5.6	4.1	4.8
S. D.	1.50	1.42	0.63	1.41	1.40	1.80	1.65	2.29	2.65	2.54
N	15	15	15	15	15	15	15	15	15	15

TABLE 13
PUBERTAL ASSAY OF SP 7077 VARIANT (TS03005) IN JUV. FEMALE RATS
INDIVIDUAL BODY WEIGHT CHANGES [G]

FEMALES

DAY 22- 42

ANIMALS FROM GROUP 2: 150 MG/KG/DAY		
22595-01	123.6	EUTH DAY 42
22595-07	107.9	EUTH DAY 42
22597-05	108.9	EUTH DAY 42
22597-07	117.6	EUTH DAY 42
22597-10	116.0	EUTH DAY 42
22598-01	123.4	EUTH DAY 42
22598-02	104.4	EUTH DAY 42
22598-12	100.1	EUTH DAY 42
22599-12	100.6	EUTH DAY 42
22600-05	102.6	EUTH DAY 42
22601-13	114.9	EUTH DAY 42
22602-03	96.7	EUTH DAY 42
22602-07	106.3	EUTH DAY 42
22602-09	89.8	EUTH DAY 42
22602-13	99.9	EUTH DAY 42
MEAN	107.5	
S.D.	9.89	
N	15	

TABLE 13
PUBERTAL ASSAY OF SP 7077 VARIANT (TS03005) IN JUV. FEMALE RATS
INDIVIDUAL BODY WEIGHT CHANGES [G]

FEMALES

DAY	22- 23	23- 24	24- 25	25- 26	26- 27	27- 28	28- 29	29- 30	30- 31	31- 32
ANIMALS FROM GROUP 3: 500 MG/KG/DAY										
22595-04	4.7	4.7	7.9	6.4	6.9	5.7	5.9	5.9	6.7	10.3
22595-10	4.4	5.0	5.4	5.3	5.6	4.5	5.3	4.9	5.9	7.5
22595-14	3.6	3.4	5.3	4.8	5.3	5.1	4.7	4.0	7.5	8.4
22597-01	2.1	6.1	4.7	3.2	5.8	5.8	3.7	4.8	4.6	6.7
22597-03	3.5	5.4	5.5	5.5	6.2	4.4	5.4	5.8	4.4	8.2
22597-08	2.9	4.6	5.3	3.0	7.8	7.0	4.6	4.6	5.9	5.5
22597-14	3.7	4.3	4.2	4.7	5.9	3.6	5.5	2.3	7.1	6.7
22598-11	4.9	5.6	4.0	4.2	6.9	4.1	6.4	3.9	6.4	6.4
22599-13	3.0	5.2	4.1	4.7	5.1	3.5	5.4	3.6	6.6	6.6
22600-02	1.9	5.1	3.5	4.8	4.7	4.8	3.8	6.0	5.6	5.3
22601-11	7.1	4.1	5.4	4.5	6.9	4.0	5.0	6.3	6.3	6.3
22601-14	3.4	4.4	4.2	5.5	5.6	5.0	4.8	8.0	4.3	7.1
22602-05	4.4	4.4	3.8	4.9	6.1	5.0	3.9	4.4	5.8	6.3
22602-06	3.8	3.7	4.1	4.1	5.0	5.9	4.9	3.7	8.2	1.5
22602-10	3.7	3.6	4.8	4.5	5.0	5.3	3.5	6.0	5.0	4.5
MEAN	3.8	4.6	4.8	4.7	5.9	4.9	4.9	4.9	6.0	6.5
S.D.	1.25	0.77	1.08	0.86	0.89	0.95	0.85	1.41	1.13	1.96
N	15	15	15	15	15	15	15	15	15	15

TABLE 13
PUBERTAL ASSAY OF SP 7077 VARIANT (TS03005) IN JUV. FEMALE RATS
INDIVIDUAL BODY WEIGHT CHANGES [G]

FEMALES

DAY	32- 33	33- 34	34- 35	35- 36	36- 37	37- 38	38- 39	39- 40	40- 41	41- 42
ANIMALS FROM GROUP 3: 500 MG/KG/DAY										
22595-04	3.2	10.5	2.4	7.7	7.9	4.1	4.8	7.8	2.0	3.1
22595-10	5.2	7.0	9.2	3.4	8.1	8.8	8.7	7.2	6.7	0.1
22595-14	4.9	5.1	7.3	5.9	5.0	5.1	9.7	0.7	8.1	-4.5
22597-01	5.2	6.1	5.2	4.1	5.7	4.7	4.5	5.5	1.7	1.8
22597-03	6.6	6.9	7.4	4.5	3.2	6.3	7.7	-0.3	8.4	2.9
22597-08	6.2	8.2	5.5	6.7	5.7	2.9	8.1	8.2	5.0	0.2
22597-14	5.2	6.9	6.0	4.6	6.7	6.0	6.0	5.7	3.8	6.5
22598-11	7.0	7.0	6.0	6.7	6.3	6.4	5.6	5.3	3.6	-0.3
22599-13	4.7	7.6	4.3	5.6	5.7	7.5	4.1	6.1	3.0	5.1
22600-02	5.1	7.9	6.5	8.0	4.4	9.4	2.1	8.8	6.0	9.5
22601-11	6.0	8.5	5.9	8.5	4.7	8.9	6.9	6.3	4.1	7.1
22601-14	5.1	7.3	4.7	7.5	5.4	6.5	1.6	8.5	5.2	4.9
22602-05	5.9	5.3	6.5	6.0	5.5	6.0	5.9	7.1	8.5	5.1
22602-06	8.5	6.1	6.9	4.9	4.1	7.8	5.6	7.2	1.5	5.5
22602-10	5.1	6.9	6.5	3.2	7.5	5.2	5.8	4.0	7.8	3.6
MEAN	5.6	7.2	6.0	5.8	5.7	6.4	5.8	5.9	5.0	3.4
S. D.	1.20	1.34	1.56	1.68	1.40	1.85	2.25	2.66	2.47	3.52
N	15	15	15	15	15	15	15	15	15	15

TABLE 13
PUBERTAL ASSAY OF SP 7077 VARIANT (TS03005) IN JUV. FEMALE RATS
INDIVIDUAL BODY WEIGHT CHANGES [G]

FEMALES

DAY 22- 42

ANIMALS FROM GROUP 3: 500 MG/KG/DAY		
22595-04	118.6	EUTH DAY 42
22595-10	118.2	EUTH DAY 42
22595-14	99.4	EUTH DAY 42
22597-01	92.0	EUTH DAY 42
22597-03	107.9	EUTH DAY 42
22597-08	107.9	EUTH DAY 42
22597-14	105.4	EUTH DAY 42
22598-11	106.4	EUTH DAY 42
22599-13	101.5	EUTH DAY 42
22600-02	113.2	EUTH DAY 42
22601-11	122.8	EUTH DAY 42
22601-14	109.0	EUTH DAY 42
22602-05	110.8	EUTH DAY 42
22602-06	103.0	EUTH DAY 42
22602-10	101.5	EUTH DAY 42
MEAN	107.8	
S.D.	8.11	
N	15	

TABLE 13
PUBERTAL ASSAY OF SP 7077 VARIANT (TS03005) IN JUV. FEMALE RATS
INDIVIDUAL BODY WEIGHT CHANGES [G]

	FEMALES									
DAY	22- 23	23- 24	24- 25	25- 26	26- 27	27- 28	28- 29	29- 30	30- 31	31- 32
ANIMALS FROM GROUP 4: 1000 MG/KG/DAY										
22595-03	2.1	5.0	3.6	4.7	5.0	4.8	4.0	5.5	4.6	5.6
22595-05	5.8	4.6	5.4	4.2	5.3	4.0	4.3	6.7	5.9	8.0
22595-13	4.8	5.4	4.6	4.8	6.1	4.0	4.7	5.9	6.2	9.1
22597-04	2.8	4.6	4.7	3.3	5.8	5.0	5.3	4.1	6.6	5.2
22597-11	2.5	5.3	4.2	3.0	5.9	4.4	10.2	-0.3	3.1	6.3
22597-12	3.1	3.3	5.4	3.9	6.3	4.6	1.6	9.7	6.3	4.8
22597-13	2.3	3.3	4.8	4.0	4.3	4.6	4.5	4.6	5.5	7.1
22598-04	5.0	3.3	4.7	4.5	5.7	3.8	4.0	5.5	6.5	5.1
22598-10	4.1	4.5	6.0	5.0	6.3	5.4	5.0	6.2	6.5	9.3
22599-01	-2.2	10.2	3.8	4.4	5.7	5.7	4.0	4.5	6.8	4.1
22599-04	-2.4	9.4	3.6	3.4	5.8	5.6	4.6	4.5	7.3	4.8
22600-09	-2.3	9.3	4.3	2.6	4.8	5.9	2.9	5.9	6.8	4.9
22601-08	3.2	3.7	6.3	5.4	5.6	3.9	3.3	5.8	5.4	4.0
22602-01	1.7	3.9	3.4	4.2	7.3	5.1	2.9	5.0	6.9	3.6
22602-04	0.6	4.5	5.1	4.4	5.7	6.0	4.6	4.6	5.4	4.7
MEAN	2.1	5.4	4.7	4.1	5.7	4.9	4.4	5.2	6.0	5.8
S.D.	2.63	2.32	0.87	0.77	0.70	0.75	1.87	2.04	1.07	1.81
N	15	15	15	15	15	15	15	15	15	15

TABLE 13
PUBERTAL ASSAY OF SP 7077 VARIANT (TS03005) IN JUV. FEMALE RATS
INDIVIDUAL BODY WEIGHT CHANGES [G]

FEMALES

DAY	32- 33	33- 34	34- 35	35- 36	36- 37	37- 38	38- 39	39- 40	40- 41	41- 42
ANIMALS FROM GROUP 4: 1000 MG/KG/DAY										
22595-03	6.9	6.7	4.3	5.1	2.6	7.2	3.2	7.4	4.0	2.2
22595-05	6.1	6.0	8.0	2.4	6.9	6.4	6.8	8.6	4.0	0.8
22595-13	4.8	8.2	5.0	5.0	8.0	3.5	2.0	11.1	4.5	5.0
22597-04	5.8	5.7	6.3	3.8	7.1	6.5	4.6	7.7	3.9	0.7
22597-11	4.0	6.9	4.6	5.9	4.4	3.6	7.6	5.6	1.4	4.5
22597-12	7.0	7.6	4.7	7.6	6.5	6.5	4.4	11.9	3.6	-0.4
22597-13	4.1	7.7	5.2	3.9	7.8	7.2	4.4	7.0	6.6	3.6
22598-04	7.2	6.1	2.8	7.9	5.4	5.9	6.2	7.7	6.3	4.4
22598-10	5.9	7.7	4.2	5.7	6.0	6.4	4.7	7.3	5.1	2.4
22599-01	6.3	6.5	6.0	6.3	6.6	6.3	7.8	3.9	4.1	5.5
22599-04	6.0	5.6	7.1	4.8	6.8	5.5	5.5	6.3	5.1	1.5
22600-09	6.4	6.1	8.6	6.3	9.5	4.4	4.8	7.4	4.3	8.9
22601-08	6.8	3.8	5.2	5.7	4.2	5.7	4.6	7.0	1.2	5.7
22602-01	6.0	3.6	12.5	2.3	7.6	5.3	5.0	7.7	1.7	3.4
22602-04	7.5	5.9	8.3	9.1	5.3	6.4	7.6	7.8	-2.2	7.0
MEAN	6.1	6.3	6.2	5.5	6.3	5.8	5.3	7.6	3.6	3.7
S. D.	1.05	1.32	2.41	1.91	1.73	1.16	1.66	1.93	2.25	2.55
N	15	15	15	15	15	15	15	15	15	15

TABLE 13
PUBERTAL ASSAY OF SP 7077 VARIANT (TS03005) IN JUV. FEMALE RATS
INDIVIDUAL BODY WEIGHT CHANGES [G]

FEMALES

DAY 22- 42

ANIMALS FROM GROUP 4: 1000 MG/KG/DAY

22595-03	94.5	EUTH DAY 42
22595-05	110.2	EUTH DAY 42
22595-13	112.7	EUTH DAY 42
22597-04	99.5	EUTH DAY 42
22597-11	93.1	EUTH DAY 42
22597-12	108.4	EUTH DAY 42
22597-13	102.5	EUTH DAY 42
22598-04	108.0	EUTH DAY 42
22598-10	113.7	EUTH DAY 42
22599-01	106.3	EUTH DAY 42
22599-04	100.8	EUTH DAY 42
22600-09	111.8	EUTH DAY 42
22601-08	96.5	EUTH DAY 42
22602-01	99.1	EUTH DAY 42
22602-04	108.3	EUTH DAY 42
MEAN	104.4	
S.D.	6.81	
N	15	

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TABLE 14
PUBERTAL ASSAY OF SP 7077 VARIANT (TS03005) IN JUV. FEMALE RATS
INDIVIDUAL ANIMAL DEVELOPMENTAL PARAMETERS - VAGINAL PATENCY

GROUP: 0 MG/KG/DAY SEX: FEMALES

ANIMAL	DAY OF RESPONSE	WEIGHT GRAMS	PND===> 27	28	29	30	31	32	33	34	35	36	37	38
22595-06	38	120.7	N	N	N	N	N	N	N	N	N	N	N	Y
22595-08	33	95.8	N	N	N	N	N	N	Y					
22595-09	30	91.3	N	N	N	Y								
22597-02	34	105.8	N	N	N	N	N	N	N	Y				
22597-06	37	116.7	N	N	N	N	N	N	N	N	N	N	Y	
22597-09	30	86.4	N	N	N	Y								
22598-06	37	115.0	N	N	N	N	N	N	N	N	N	N	Y	
22598-09	36	112.2	N	N	N	N	N	N	N	N	N	Y		
22599-14	37	106.4	N	N	N	N	N	N	N	N	N	N	Y	
22601-09	33	91.1	N	N	N	N	N	N	Y					
22602-02	35	94.4	N	N	N	N	N	N	N	N	Y			
22602-08	36	105.0	N	N	N	N	N	N	N	N	N	Y		
22602-11	34	90.5	N	N	N	N	N	N	N	Y				
22602-12	34	93.6	N	N	N	N	N	N	N	Y				
22602-14	35	106.2	N	N	N	N	N	N	N	N	Y			
MEAN	34.6	102.1												
S.D.	2.41	10.94												
N	15	15												

N = NEGATIVE RESPONSE, Y = POSITIVE RESPONSE
PND= POSTNATAL DAY

TABLE 14
PUBERTAL ASSAY OF SP 7077 VARIANT (TS03005) IN JUV. FEMALE RATS
INDIVIDUAL ANIMAL DEVELOPMENTAL PARAMETERS - VAGINAL PATENCY

GROUP: 150 MG/KG/DAY SEX: FEMALES

ANIMAL	DAY OF RESPONSE	WEIGHT GRAMS	PND===> 27	28	29	30	31	32	33	34	35	36	37	38
22595-01	35	116.2	N	N	N	N	N	N	N	N	Y			
22595-07	33	106.0	N	N	N	N	N	N	Y					
22597-05	37	118.2	N	N	N	N	N	N	N	N	N	N	Y	
22597-07	28	77.0	N	Y										
22597-10	38	131.5	N	N	N	N	N	N	N	N	N	N	N	Y
22598-01	31	94.1	N	N	N	N	Y							
22598-02	35	122.0	N	N	N	N	N	N	N	N	Y			
22598-12	37	116.3	N	N	N	N	N	N	N	N	N	N	Y	
22599-12	36	93.5	N	N	N	N	N	N	N	N	N	Y		
22600-05	32	79.1	N	N	N	N	N	Y						
22601-13	37	135.6	N	N	N	N	N	N	N	N	N	N	Y	
22602-03	32	77.4	N	N	N	N	N	Y						
22602-07	37	116.0	N	N	N	N	N	N	N	N	N	N	Y	
22602-09	36	98.6	N	N	N	N	N	N	N	N	N	Y		
22602-13	37	107.6	N	N	N	N	N	N	N	N	N	N	Y	
MEAN	34.7	105.9												
S.D.	2.89	18.86												
N	15	15												

N = NEGATIVE RESPONSE, Y = POSITIVE RESPONSE
PND= POSTNATAL DAY

TABLE 14
PUBERTAL ASSAY OF SP 7077 VARIANT (TS03005) IN JUV. FEMALE RATS
INDIVIDUAL ANIMAL DEVELOPMENTAL PARAMETERS - VAGINAL PATENCY

GROUP: 500 MG/KG/DAY SEX: FEMALES

ANIMAL	DAY OF RESPONSE	WEIGHT GRAMS	PND===> 27	28	29	30	31	32	33	34	35	36	37	38
22595-04	28	81.9	N	Y										
22595-10	30	81.2	N	N	N	Y								
22595-14	29	79.4	N	N	Y									
22597-01	31	78.9	N	N	N	N	Y							
22597-03	28	69.7	N	Y										
22597-08	29	77.0	N	N	Y									
22597-14	28	65.7	N	Y										
22598-11	32	93.6	N	N	N	N	N	Y						
22599-13	29	60.9	N	N	Y									
22600-02	29	55.9	N	N	Y									
22601-11	28	73.3	N	Y										
22601-14	33	99.4	N	N	N	N	N	N	Y					
22602-05	35	99.4	N	N	N	N	N	N	N	N	Y			
22602-06	31	76.2	N	N	N	N	Y							
22602-10	30	68.0	N	N	N	Y								
MEAN	30.0	77.4												
S.D.	2.07	12.84												
N	15	15												

N = NEGATIVE RESPONSE, Y = POSITIVE RESPONSE
PND= POSTNATAL DAY

TABLE 14
PUBERTAL ASSAY OF SP 7077 VARIANT (TS03005) IN JUV. FEMALE RATS
INDIVIDUAL ANIMAL DEVELOPMENTAL PARAMETERS - VAGINAL PATENCY

GROUP: 1000 MG/KG/DAY SEX: FEMALES

ANIMAL	DAY OF RESPONSE	WEIGHT GRAMS	PND===> 27	28	29	30	31	32	33	34	35	36	37	38
22595-03	28	69.6	N	Y										
22595-05	28	75.5	N	Y										
22595-13	28	71.2	N	Y										
22597-04	28	63.4	N	Y										
22597-11	28	61.6	N	Y										
22597-12	27	61.5	Y											
22597-13	28	57.6	N	Y										
22598-04	27	65.3	Y											
22598-10	28	74.2	N	Y										
22599-01	28	55.8	N	Y										
22599-04	28	51.5	N	Y										
22600-09	28	50.0	N	Y										
22601-08	28	73.1	N	Y										
22602-01	28	65.2	N	Y										
22602-04	28	65.3	N	Y										
MEAN	27.9	64.1												
S.D.	0.35	7.93												
N	15	15												

N = NEGATIVE RESPONSE, Y = POSITIVE RESPONSE
PND= POSTNATAL DAY

PJTBBv1.03
04/21/2003
R: 04/21/2003

TABLE 15
PUBERTAL ASSAY OF SP 7077 VARIANT (TS03005) IN JUV. FEMALE RATS
INDIVIDUAL ESTROUS CYCLE DATA

FEMALES FROM GROUP 1: 0 MG/KG/DAY

FEMALE NUMBER	DETERMINATION DAY: 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	INDIVIDUAL MEAN LENGTH OF ESTROUS CYCLE (DAYS)
22595-06	N	N	N	N	N	N	N	N	N	N	E	D	D	D	P		A
22595-08	N	N	N	N	N	E	D	D	D	D	D	P	E	D	D		7.0
22595-09	N	N	N	E	D	D	D	D	D	D	D	D	D	D	D		A
22597-02	N	N	N	N	N	N	E	D	D	D	D	D	P	E	D		7.0
22597-06	N	N	N	N	N	N	N	N	N	E	D	D	D	P	E		A
22597-09	N	N	N	E	D	D	D	D	D	E	D	D	D	D	E		7.0
22598-06	N	N	N	N	N	N	N	N	N	E	D	D	D	D	E		A
22598-09	N	N	N	N	N	N	N	N	N	E	D	D	D	E	D		5.0
22599-14	N	N	N	N	N	N	N	N	N	E	D	D	D	D	E		A
22601-09	N	N	N	N	N	E	D	D	D	D	E	D	D	D	P		5.0
22602-02	N	N	N	N	N	N	N	N	E	D	D	D	D	E	E		A
22602-08	N	N	N	N	N	N	N	N	D	D	D	D	E	E	D		A
22602-11	N	N	N	N	N	N	E	D	D	D	D	E	E	D	D		6.0
22602-12	N	N	N	N	N	N	E	D	D	D	D	E	E	D	D		6.0
22602-14	N	N	N	N	N	N	N	D	D	D	P	E	D	D	D		A
MEAN																	6.1
S.D.																	0.90
N																	7

ESTROUS STAGE CODE: E = ESTRUS, D = DIESTRUS, M = METESTRUS, P = PROESTRUS
A = UNABLE TO DETERMINE LENGTH OF ESTROUS CYCLE
N = NOT ENTERED

TABLE 15
PUBERTAL ASSAY OF SP 7077 VARIANT (TS03005) IN JUV. FEMALE RATS
INDIVIDUAL ESTROUS CYCLE DATA

FEMALES FROM GROUP 2: 150 MG/KG/DAY

FEMALE NUMBER	DETERMINATION DAY: 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	INDIVIDUAL MEAN LENGTH OF ESTROUS CYCLE (DAYS)
22595-01	N	N	N	N	N	N	N	N	D	D	D	P	E	D	D	D	A
22595-07	N	N	N	N	N	P	E	D	D	D	D	P	E	E	D		7.0
22597-05	N	N	N	N	N	N	N	N	N	N	E	D	D	D	D	E	A
22597-07	N	E	D	D	D	D	D	D	D	D	D	D	M	D	D		A
22597-10	N	N	N	N	N	N	N	D	N	N	N	D	D	E	D	D	A
22598-01	N	N	N	N	D	D	D	D	P	E	D	D	D	P	E	D	5.0
22598-02	N	N	N	N	N	N	N	N	E	E	D	D	D	D	E	D	5.0
22598-12	N	N	N	N	N	N	N	N	N	N	E	D	D	D	D	P	A
22599-12	N	N	N	N	N	N	N	N	N	D	D	P	E	D	D	D	A
22600-05	N	N	N	N	N	E	D	D	D	D	E	D	D	D	P	E	5.0
22601-13	N	N	N	N	N	N	N	N	N	N	P	E	D	D	D	P	A
22602-03	N	N	N	N	N	D	P	E	D	D	D	D	P	E	D	D	6.0
22602-07	N	N	N	N	N	N	N	N	N	N	D	D	P	E	D	D	A
22602-09	N	N	N	N	N	N	N	N	N	E	D	D	D	D	E	D	5.0
22602-13	N	N	N	N	N	N	N	N	N	N	E	D	D	D	D	D	A
																MEAN	5.5
																S.D.	0.84
																N	6

ESTROUS STAGE CODE: E = ESTRUS, D = DIESTRUS, M = METESTRUS, P = PROESTRUS
A = UNABLE TO DETERMINE LENGTH OF ESTROUS CYCLE
N = NOT ENTERED

TABLE 15
PUBERTAL ASSAY OF SP 7077 VARIANT (TS03005) IN JUV. FEMALE RATS
INDIVIDUAL ESTROUS CYCLE DATA

FEMALES FROM GROUP 3: 500 MG/KG/DAY

FEMALE NUMBER	DETERMINATION DAY: 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	INDIVIDUAL MEAN LENGTH OF ESTROUS CYCLE (DAYS)
22595-04	N	D	P	E	D	D	D	D	D	E	D	D	D	D	E	D	5.5
22595-10	N	N	N	P	E	D	D	D	D	D	D	D	D	D	D	E	A
22595-14	N	N	D	D	D	P	E	D	D	D	P	E	D	D	D	P	5.0
22597-01	N	N	N	N	D	D	E	D	D	D	D	D	E	D	D	D	6.0
22597-03	N	D	D	D	D	D	P	E	D	D	D	D	P	E	D	D	6.0
22597-08	N	N	D	D	D	D	D	D	E	E	D	D	D	D	D	E	A
22597-14	N	D	D	D	D	D	P	E	D	D	D	D	D	D	D	D	A
22598-11	N	N	N	N	N	D	D	D	D	E	D	D	D	D	P	E	A
22599-13	N	N	D	D	D	D	P	E	D	E	D	D	D	E	D	D	3.0
22600-02	N	N	D	D	D	D	E	D	D	D	D	P	E	D	D	D	6.0
22601-11	N	D	D	D	D	D	D	D	E	D	D	D	P	E	D	D	5.0
22601-14	N	N	N	N	N	N	E	D	D	D	D	E	E	D	D	D	6.0
22602-05	N	N	N	N	N	N	N	N	D	D	D	E	D	D	D	D	A
22602-06	N	N	N	N	D	D	D	D	E	D	D	D	D	P	E	D	6.0
22602-10	N	N	N	D	D	D	D	D	D	P	E	D	D	D	D	P	A
																	MEAN 5.4
																	S.D. 0.99
																	N 9

ESTROUS STAGE CODE: E = ESTRUS, D = DIESTRUS, M = METESTRUS, P = PROESTRUS
A = UNABLE TO DETERMINE LENGTH OF ESTROUS CYCLE
N = NOT ENTERED

TABLE 15
PUBERTAL ASSAY OF SP 7077 VARIANT (TS03005) IN JUV. FEMALE RATS
INDIVIDUAL ESTROUS CYCLE DATA

FEMALES FROM GROUP 4: 1000 MG/KG/DAY

FEMALE NUMBER	DETERMINATION DAY: 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	INDIVIDUAL MEAN LENGTH OF ESTROUS CYCLE (DAYS)
22595-03	N	D	D	D	D	D	D	P	E	D	D	D	D	P	E	E	A
22595-05	N	D	D	D	D	D	D	E	E	D	D	D	D	P	E	D	6.0
22595-13	N	D	D	D	D	D	E	D	D	D	D	P	E	D	D	D	6.0
22597-04	N	D	D	D	D	D	D	D	D	D	D	D	E	D	D	D	A
22597-11	N	D	D	D	D	P	E	E	D	D	D	D	D	D	E	D	7.0
22597-12	D	D	D	D	D	D	D	D	P	E	D	D	D	D	P	E	A
22597-13	N	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	A
22598-04	D	D	D	D	P	E	E	D	D	D	D	D	D	D	D	D	A
22598-10	N	D	D	D	E	D	D	D	P	E	D	D	D	P	E	D	5.0
22599-01	N	D	D	D	D	D	D	D	D	P	E	D	D	D	D	P	A
22599-04	N	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	A
22600-09	N	D	D	D	D	D	D	D	D	D	D	E	D	D	D	D	A
22601-08	N	D	D	D	D	D	D	D	D	D	D	D	D	D	D	P	A
22602-01	N	D	D	D	D	D	D	D	D	D	D	D	D	E	D	D	A
22602-04	N	D	D	D	D	D	D	D	P	E	E	D	D	D	D	D	A
																	MEAN 6.0
																	S.D. 0.82
																	N 4

ESTROUS STAGE CODE: E = ESTRUS, D = DIESTRUS, M = METESTRUS, P = PROESTRUS
A = UNABLE TO DETERMINE LENGTH OF ESTROUS CYCLE
N = NOT ENTERED

PCYCv5.06
04/21/2003
R: 05/22/2003

TABLE 16
PUBERTAL ASSAY OF SP 7077 VARIANT (TS03005) IN JUV. FEMALE RATS
INDIVIDUAL ORGAN WEIGHTS AND FINAL BODY WEIGHTS [G]

FEMALE GROUP: 0 MG/KG/DAY

ANIMAL	FBW(G)	UTERUS WET	UTERUS BLOT.	LUMINAL FLUID	LIVER	OVARIES	ADRENAL GLANDS	PITU ITARY
22595-06	138.	0.3534	0.3343	0.0191	6.48	0.0641	0.0339	0.0070
22595-08	130.	0.1806	0.1791	0.0015	6.01	0.0797	0.0306	0.0067
22595-09	163.	0.3783	0.3469	0.0314	9.19	0.0927	0.0363	0.0084
22597-02	148.	0.2943	0.2721	0.0222	7.90	0.0870	0.0324	0.0092
22597-06	138.	0.2636	0.2458	0.0178	9.14	0.0659	0.0282	0.0083
22597-09	150.	0.3262	0.3068	0.0194	8.08	0.1134	0.0445	0.0102
22598-06	131.	0.2418	0.2283	0.0135	6.25	0.0764	0.0340	0.0087
22598-09	144.	0.2180	0.1991	0.0189	6.74	0.0797	0.0315	0.0087
22599-14	126.	0.2437	0.2303	0.0134	6.03	0.0708	0.0353	0.0077
22601-09	121.	0.6631	0.3821	0.2810	5.35	0.0880	0.0431	0.0064
22602-02	127.	0.3042	0.2797	0.0245	6.08	0.0845	0.0415	0.0065
22602-08	129.	0.2511	0.2246	0.0265	5.89	0.0774	0.0374	0.0088
22602-11	124.	0.2498	0.2302	0.0196	5.60	0.0683	0.0297	0.0073
22602-12	133.	0.3324	0.3106	0.0218	5.22	0.0733	0.0338	0.0083
22602-14	142.	0.4482	0.3766	0.0716	6.36	0.0733	0.0360	0.0076
MEAN	136.	0.3166	0.2764	0.0401	6.69	0.0796	0.0352	0.0080
S.D.	11.5	0.11778	0.06397	0.06831	1.283	0.01251	0.00480	0.00108
N	15	15	15	15	15	15	15	15

FBW = FINAL BODY WEIGHT

TABLE 16
PUBERTAL ASSAY OF SP 7077 VARIANT (TS03005) IN JUV. FEMALE RATS
INDIVIDUAL ORGAN WEIGHTS AND FINAL BODY WEIGHTS [G]

FEMALE GROUP: 150 MG/KG/DAY

ANIMAL	FBW(G)	UTERUS WET	UTERUS BLOT.	LUMINAL FLUID	LIVER	OVARIES	ADRENAL GLANDS	PITUITARY
22595-01	162.	0.3372	0.3102	0.0270	9.33	0.0832	0.0397	0.0091
22595-07	155.	0.1675	0.1660	0.0015	8.11	0.0681	0.0362	0.0070
22597-05	146.	0.7193	0.3723	0.3470	8.00	0.0662	0.0331	0.0089
22597-07	163.	0.2827	0.2627	0.0200	8.21	0.1009	0.0409	0.0080
22597-10	154.	0.2203	0.1999	0.0204	8.19	0.0742	0.0347	0.0080
22598-01	163.	0.2484	0.2312	0.0172	8.60	0.0904	0.0410	0.0094
22598-02	154.	0.2130	0.1932	0.0198	8.12	0.0986	0.0317	0.0077
22598-12	139.	0.5080	0.3033	0.2047	6.48	0.0603	0.0357	0.0080
22599-12	127.	0.3469	0.3242	0.0227	6.60	0.0829	0.0328	0.0067
22600-05	131.	0.3005	0.2812	0.0193	6.78	0.0770	0.0390	0.0103
22601-13	158.	0.5032	0.3659	0.1373	7.02	0.0895	0.0412	0.0080
22602-03	123.	0.2342	0.2155	0.0187	5.26	0.0625	0.0314	0.0058
22602-07	141.	0.3208	0.2983	0.0225	6.30	0.0978	0.0413	0.0091
22602-09	127.	0.1870	0.1701	0.0169	5.90	0.0646	0.0292	0.0071
22602-13	134.	0.2221	0.2022	0.0199	6.20	0.0629	0.0305	0.0068
MEAN	145.	0.3207	0.2597	0.0610	7.27	0.0786	0.0359	0.0080
S.D.	14.3	0.15013	0.06835	0.09637	1.167	0.01436	0.00434	0.00121
N	15	15	15	15	15	15	15	15

FBW = FINAL BODY WEIGHT

TABLE 16
PUBERTAL ASSAY OF SP 7077 VARIANT (TS03005) IN JUV. FEMALE RATS
INDIVIDUAL ORGAN WEIGHTS AND FINAL BODY WEIGHTS [G]

FEMALE GROUP: 500 MG/KG/DAY

ANIMAL	FBW(G)	UTERUS WET	UTERUS BLOT.	LUMINAL FLUID	LIVER	OVARIES	ADRENAL GLANDS	PITU ITARY
22595-04	164.	0.2722	0.2542	0.0180	11.20	0.0916	0.0369	0.0127
22595-10	159.	0.3632	0.3396	0.0236	10.09	0.0953	0.0386	0.0083
22595-14	147.	0.7803	0.3741	0.4062	8.43	0.0720	0.0398	0.0085
22597-01	130.	0.4309	0.3660	0.0649	7.15	0.0778	0.0336	0.0075
22597-03	147.	0.2307	0.2127	0.0180	8.85	0.0628	0.0335	0.0078
22597-08	150.	0.3699	0.3518	0.0181	7.92	0.1008	0.0372	0.0090
22597-14	145.	0.3111	0.2910	0.0182	8.12	0.0829	0.0486	0.0097
22598-11	147.	0.3111	0.2910	0.0201	8.12	0.0829	0.0486	0.0097
22599-13	131.	0.1971	0.1796	0.0175	7.07	0.0613	0.0299	0.0067
22600-02	141.	0.5134	0.4618	0.0516	7.25	0.0837	0.0342	0.0093
22601-11	164.	0.2355	0.2178	0.0177	8.29	0.0854	0.0453	0.0081
22601-14	151.	0.4051	0.3572	0.0479	8.26	0.0864	0.0405	0.0085
22602-05	144.	0.3719	0.2853	0.0866	6.53	0.0604	0.0332	0.0061
22602-06	136.	0.2295	0.2125	0.0170	6.97	0.0702	0.0341	0.0085
22602-10	133.	0.7791	0.3685	0.4106	6.83	0.0598	0.0328	0.0092
MEAN	146.	0.3772	0.2948	0.0824	8.07	0.0767	0.0367	0.0084
S.D.	10.8	0.18920	0.08828	0.13405	1.264	0.01401	0.00514	0.00160
N	15	15	15	15	15	15	15	15

FBW = FINAL BODY WEIGHT

TABLE 16
PUBERTAL ASSAY OF SP 7077 VARIANT (TS03005) IN JUV. FEMALE RATS
INDIVIDUAL ORGAN WEIGHTS AND FINAL BODY WEIGHTS [G]

FEMALE GROUP: 1000 MG/KG/DAY

ANIMAL	FBW(G)	UTERUS WET	UTERUS BLOT.	LUMINAL FLUID	LIVER	OVARIES	ADRENAL GLANDS	PITU ITARY
22595-03	139.	0.3343	0.3063	0.0280	7.93	0.0761	0.0385	0.0073
22595-05	156.	0.1947	0.1780	0.0167	10.23	0.0750	0.0332	0.0082
22595-13	154.	0.4209	0.3867	0.0342	10.12	0.0814	0.0467	0.0082
22597-04	137.	0.2136	0.1953	0.0183	8.63	0.0505	0.0334	0.0078
22597-11	129.	0.2666	0.2449	0.0217	7.23	0.0698	0.0300	0.0072
22597-12	148.	0.2446	0.2296	0.0150	9.56	0.0781	0.0348	0.0084
22597-13	137.	0.1492	0.1326	0.0166	7.98	0.0467	0.0320	0.0060
22598-04	150.	0.3043	0.2900	0.0143	8.53	0.0606	0.0358	0.0066
22598-10	157.	0.2892	0.2647	0.0245	8.88	0.0957	0.0513	0.0088
22599-01	135.	0.5335	0.3495	0.1840	8.42	0.0679	0.0344	0.0083
22599-04	127.	0.0928	0.0788	0.0140	6.62	0.0403	0.0349	0.0061
22600-09	137.	0.3187	0.2407	0.0780	7.36	0.0603	0.0282	0.0067
22601-08	142.	0.4642	0.3025	0.1617	7.25	0.0562	0.0396	0.0073
22602-01	139.	0.1967	0.1826	0.0141	7.75	0.0726	0.0418	0.0076
22602-04	147.	0.2211	0.2083	0.0128	7.79	0.0793	0.0494	0.0100
MEAN	142.	0.2830	0.2394	0.0436	8.29	0.0674	0.0376	0.0076
S.D.	9.4	0.11914	0.08138	0.05509	1.065	0.01486	0.00695	0.00107
N	15	15	15	15	15	15	15	15

FBW = FINAL BODY WEIGHT

POFBWv4.12
04/21/2003
R: 04/21/2003

TABLE 17
PUBERTAL ASSAY OF SP 7077 VARIANT (TS03005) IN JUV. FEMALE RATS
INDIVIDUAL ORGAN WTS. RELATIVE TO FINAL BODY WTS. [G/100 G]

FEMALE GROUP: 0 MG/KG/DAY

ANIMAL	FBW(G)	UTERUS WET	UTERUS - BLOT.	LIVER	OVARIES	ADRENAL GLANDS	PITU ITARY
22595-06	138.	0.256	0.242	4.696	0.046	0.025	0.005
22595-08	130.	0.139	0.138	4.623	0.061	0.024	0.005
22595-09	163.	0.232	0.213	5.638	0.057	0.022	0.005
22597-02	148.	0.199	0.184	5.338	0.059	0.022	0.006
22597-06	138.	0.191	0.178	6.623	0.048	0.020	0.006
22597-09	150.	0.217	0.205	5.387	0.076	0.030	0.007
22598-06	131.	0.185	0.174	4.771	0.058	0.026	0.007
22598-09	144.	0.151	0.138	4.681	0.055	0.022	0.006
22599-14	126.	0.193	0.183	4.786	0.056	0.028	0.006
22601-09	121.	0.548	0.316	4.421	0.073	0.036	0.005
22602-02	127.	0.240	0.220	4.787	0.067	0.033	0.005
22602-08	129.	0.195	0.174	4.566	0.060	0.029	0.007
22602-11	124.	0.201	0.186	4.516	0.055	0.024	0.006
22602-12	133.	0.250	0.234	3.925	0.055	0.025	0.006
22602-14	142.	0.316	0.265	4.479	0.052	0.025	0.005
MEAN	136.	0.234	0.203	4.882	0.059	0.026	0.006
S.D.	11.5	0.0971	0.0473	0.6416	0.0082	0.0044	0.0008
N	15	15	15	15	15	15	15

FBW = FINAL BODY WEIGHT

TABLE 17
PUBERTAL ASSAY OF SP 7077 VARIANT (TS03005) IN JUV. FEMALE RATS
INDIVIDUAL ORGAN WTS. RELATIVE TO FINAL BODY WTS. [G/100 G]

FEMALE GROUP: 150 MG/KG/DAY

ANIMAL	FBW(G)	UTERUS WET	UTERUS - BLOT.	LIVER	OVARIES	ADRENAL GLANDS	PITU ITARY
22595-01	162.	0.208	0.191	5.759	0.051	0.025	0.006
22595-07	155.	0.108	0.107	5.232	0.044	0.023	0.005
22597-05	146.	0.493	0.255	5.479	0.045	0.023	0.006
22597-07	163.	0.173	0.161	5.037	0.062	0.025	0.005
22597-10	154.	0.143	0.130	5.318	0.048	0.023	0.005
22598-01	163.	0.152	0.142	5.276	0.055	0.025	0.006
22598-02	154.	0.138	0.125	5.273	0.064	0.021	0.005
22598-12	139.	0.365	0.218	4.662	0.043	0.026	0.006
22599-12	127.	0.273	0.255	5.197	0.065	0.026	0.005
22600-05	131.	0.229	0.215	5.176	0.059	0.030	0.008
22601-13	158.	0.318	0.232	4.443	0.057	0.026	0.005
22602-03	123.	0.190	0.175	4.276	0.051	0.026	0.005
22602-07	141.	0.228	0.212	4.468	0.069	0.029	0.006
22602-09	127.	0.147	0.134	4.646	0.051	0.023	0.006
22602-13	134.	0.166	0.151	4.627	0.047	0.023	0.005
MEAN	145.	0.222	0.180	4.991	0.054	0.025	0.006
S.D.	14.3	0.1033	0.0488	0.4373	0.0083	0.0024	0.0008
N	15	15	15	15	15	15	15

FBW = FINAL BODY WEIGHT

TABLE 17
PUBERTAL ASSAY OF SP 7077 VARIANT (TS03005) IN JUV. FEMALE RATS
INDIVIDUAL ORGAN WTS. RELATIVE TO FINAL BODY WTS. [G/100 G]

FEMALE GROUP: 500 MG/KG/DAY

ANIMAL	FBW(G)	UTERUS WET	UTERUS - BLOT.	LIVER	OVARIES	ADRENAL GLANDS	PITU ITARY
22595-04	164.	0.166	0.155	6.829	0.056	0.023	0.008
22595-10	159.	0.228	0.214	6.346	0.060	0.024	0.005
22595-14	147.	0.531	0.254	5.735	0.049	0.027	0.006
22597-01	130.	0.331	0.282	5.500	0.060	0.026	0.006
22597-03	147.	0.157	0.145	6.020	0.043	0.023	0.005
22597-08	150.	0.247	0.235	5.280	0.067	0.025	0.006
22597-14	145.	0.116	0.104	5.607	0.041	0.022	0.004
22598-11	147.	0.212	0.198	5.524	0.056	0.033	0.007
22599-13	131.	0.150	0.137	5.397	0.047	0.023	0.005
22600-02	141.	0.364	0.328	5.142	0.059	0.024	0.007
22601-11	164.	0.144	0.133	5.055	0.052	0.028	0.005
22601-14	151.	0.268	0.237	5.470	0.057	0.027	0.006
22602-05	144.	0.258	0.198	4.535	0.042	0.023	0.004
22602-06	136.	0.169	0.156	5.125	0.052	0.025	0.006
22602-10	133.	0.586	0.277	5.135	0.045	0.025	0.007
MEAN	146.	0.262	0.204	5.513	0.052	0.025	0.006
S.D.	10.8	0.1397	0.0650	0.5611	0.0078	0.0028	0.0011
N	15	15	15	15	15	15	15

FBW = FINAL BODY WEIGHT

TABLE 17
PUBERTAL ASSAY OF SP 7077 VARIANT (TS03005) IN JUV. FEMALE RATS
INDIVIDUAL ORGAN WTS. RELATIVE TO FINAL BODY WTS. [G/100 G]

FEMALE GROUP: 1000 MG/KG/DAY

ANIMAL	FBW(G)	UTERUS WET	UTERUS - BLOT.	LIVER	OVARIES	ADRENAL GLANDS	PITU ITARY
22595-03	139.	0.241	0.220	5.705	0.055	0.028	0.005
22595-05	156.	0.125	0.114	6.558	0.048	0.021	0.005
22595-13	154.	0.273	0.251	6.571	0.053	0.030	0.005
22597-04	137.	0.156	0.143	6.299	0.037	0.024	0.006
22597-11	129.	0.207	0.190	5.605	0.054	0.023	0.006
22597-12	148.	0.165	0.155	6.459	0.053	0.024	0.006
22597-13	137.	0.109	0.097	5.825	0.034	0.023	0.004
22598-04	150.	0.203	0.193	5.687	0.040	0.024	0.004
22598-10	157.	0.184	0.169	5.656	0.061	0.033	0.006
22599-01	135.	0.395	0.259	6.237	0.050	0.025	0.006
22599-04	127.	0.073	0.062	5.213	0.032	0.027	0.005
22600-09	137.	0.233	0.176	5.372	0.044	0.021	0.005
22601-08	142.	0.327	0.213	5.106	0.040	0.028	0.005
22602-01	139.	0.142	0.131	5.576	0.052	0.030	0.005
22602-04	147.	0.150	0.142	5.299	0.054	0.034	0.007
MEAN	142.	0.199	0.168	5.811	0.047	0.026	0.005
S.D.	9.4	0.0852	0.0555	0.4952	0.0087	0.0041	0.0008
N	15	15	15	15	15	15	15

FBW = FINAL BODY WEIGHT

POFBWv4.12
04/21/2003
R: 06/10/2003

APPENDIX A

Certificate of Analysis (Sponsor-Provided Data)

Test Substance Certificate

Test Substance
TS03005

Lot #
TS03005

Purity
100%

Physical Description
Dark brown viscous liquid

Storage Conditions
Ambient

Expiration Date
1 March 2004

Additional Comments
Can be heated to 60°C to facilitate sampling.

APPENDIX B

Analytical Chemistry Report (Sponsor-Provided Data)

TITLE
The Analytical Report in Support of a Female Pubertal Assay of SP 7077 Variant (TS03005) Administered Orally in Juvenile Female Rats

SUBMITTED TO SUPPORT THE TESTING OF:
SP 7077 Variant, TS03005

AUTHOR

STUDY INITIATION DATE
5 March 2003

ANALYTICAL START DATE
19 March 2003

ANALYTICAL END DATE
16 April 2003

ANALYTICAL STUDY COMPLETION DATE
6 June 2003

TOTAL PAGES
12

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ANALYTICAL STUDY GLP COMPLIANCE STATEMENT

All analytical tests performed by Integrated Laboratory Technologies for [illegible] ducted in compliance with current EPA Good Laboratory Practice (GLP) standards as described by the Toxic Substances Control Act (TSCA) 40 CFR Part 792, and the revised Organization for Economic Cooperation and Development (OECD) Principles of GLP, ENV/MC/CHEM(98)17.

ANALYTICAL STUDY QUALITY ASSURANCE UNIT STATEMENT

The analytical raw data and final report for the Integrated Laboratory Technologies (ILT) study have been reviewed by the ILT Quality Assurance Team.

The report appears to accurately describe the methods and Standard Operating Procedures (SOPs) used in the study. The reported results accurately reflect the raw data of the study.

Study Title
The Analytical Report in Support of a Female Pubertal Assay of SP 7077 Variant (TS03005) Administered Orally in Juvenile Female Rats

		Dates Reported to	
	Study Director	WIL Research Mgmt	ILT Mgmt
Study In-progress Inspection 20 March 03	19 April 03	19 April 03	18 April 03
Analytical Draft Report Review 20 May 03 3 and 5 June 03	6 June 03	6 June 03	6 June 03
Analytical Final Report Review 6 June 03	6 June 03	6 June 03	6 June 03

ABSTRACT

Samples of suspensions (TS03005 in corn oil) used in a female pubertal assay in rat
F
ly their homogeneity, stability, and nominal
concentrations. A direct dilution procedure was employed to prepare the samples for elemental analysis by Inductively Coupled Plasma-Atomic Emission Spectroscopy (ICP-AES). Homogeneity and stability of TS03005 in corn oil were established. The nominal concentrations of all dosing suspensions were verified by the analytical data.

TEST SUBSTANCE

The test substance used in the preparation of the dosing suspensions is identified as a SP 7077 variant by the Sponsor but will be referred to by its lot number of TS03005 throughout this report. The CAS number is confidential; contact further information. The test substance was characterized and its stability was established prior to the initiation of the study. The stability of TS03005 (±15% of the expected value) at emonstrated on page 8. This data was generated during a Hershberger Assay study with TS03005, WIL-187037

INTRODUCTION

The purpose of this analytical study was the determination and verification of TS03005 homogeneity, stability, and concentration in corn oil. The concentration study samples were aliquots taken from mixtures prepared as dosing suspensions for a female pubertal assay in rats as outlined in the protocol for

The analytical portion of the study was performed by the Elemental Analysis Team in the Integrated Laboratory Technologies (ILT) group at
The analytical start and end dates were 19 March 2003 and 16 April 2003 respectively.

EXPERIMENTAL

SAMPLES
Samples were shipped from T's Principal Investigator. Samples were stored at room temperature and in the dark prior to analysis.

The first batch of samples was transferred to the laboratory on 19 March 2003. The analysis of the last sample was completed on 11 April 2003. The density of the corn oil vehicle was determined on 16 April 2003.

STANDARDS
Calibration standards for the ICP-AES were made from certified commercially prepared elemental concentrates (Conostan Division of Conoco, Inc.). Standard preparation data is archived by ILT.

ANALYTICAL METHOD
Samples were prepared as stated in ILT's Test Code 30157, SOP ME-007 "Direct Dilution Method to Verify Concentrations of Additives Dissolved in Solvent Vehicles," and analyzed following the procedure outlined in SOP EQ-114 "Model 3560 Inductively Coupled Plasma Spectrometer."

The approach employed in this method was to verify concentration based on the known elemental composition of TS03005. Aliquots of the dosing suspensions were diluted in an o-xylene diluent and the elemental composition was determined by ICP-AES. The calcium concentration of the samples was then used to ascertain the concentration of TS03005 in the dosing suspensions.

DISCUSSION

DETERMINATION OF THE METHOD DETECTION LIMIT
The method detection limit (MDL) was determined following the procedure outlined in 40 CFR 136 Appendix B. The procedure required seven measurements of a standard. The mean, standard deviation, and variance of the replicates were used in the computation of the MDL. The MDL for calcium was calculated to be 0.007 weight (wt) ppm. A reporting limit of 0.7 wt ppm is used for vehicle sample results.

SAMPLE ANALYSIS
The analytical results for the suspensions of TS03005 in corn oil are summarized in the tables located on pages 9 through 12. Nine calibration standards were analyzed to generate a second order fit with inverse concentration-squared weighting. All instrument control checks were within acceptable limits. Known amounts of calcium were spiked into 11 samples throughout the duration of the study and gave acceptable percent recoveries of 92 to 102%.

The dosing suspensions were analyzed for calcium, an element present in known concentrations in the test substance, TS03005. Dosing suspension estimates of weight percent calcium were derived by the following formula:

$$Wt\%\ Ca = \left[\frac{x}{x + \left(D_2 - \frac{xD_2}{D_1} \right)} \right] \%\ Ca\ in\ TS03005$$

where x is the solute test substance concentration in mg/µL; D_1 is the test substance density (1.0005 g/mL); and D_2 is the vehicle or solvent density (corn oil, 0.9190 g/mL). The concentration of calcium in TS03005 is 5.94 wt%. The measured results of calcium were obtained by ICP-AES, converted to wt% from ppm by multiplying by 10^{-4}, and then compared against the theoretical values.

Homogeneity was confirmed if the percent differences between the overall dose level mean and individual strata means were 10% or less. Stability and concentration data were evaluated using percent difference. The acceptable tolerance was 15%. Duplicate analyses were compared using the Contract Laboratories Program (CLP) Guidelines for Inorganic Analyses relative percent difference limit of 20%.

RESULTS AND CONCLUSIONS

The confirmation of dosing suspension homogeneity is supported by the data presented on page 9. The percent difference of all strata means with their respective overall mean is well below the 10% tolerance.

Ten-day stability of TS03005 in corn oil is established on page 10. The suspensions were analyzed when received from WIL Research and again ten days after the initial analysis. The percent difference between the estimated and measured concentrations is less than 15% for all dosing levels.

The Summary of Analytical Results for the Concentration Study is found on page 11. The nominal concentrations of all dosing suspensions were verified by the analytical data. The percent difference between the estimated and measured concentrations is less than 15% for all dosing levels.

The table on page 12 presents the duplicate precision data. The agreement between the duplicates is excellent and well under the CLP guideline tolerance of 20%.

ARCHIVES

SAMPLES
The unused portion of all samples shall be stored in
a minimum of one year after the final analytical report is issued.

RAW DATA
Calibration data; and instrument, chemical, and standard logbook documentation shall be archived by ILT as facility records. All other raw data shall be archived in the Analytical Study File in ILT's Analytical Study Archives.

FINAL REPORT
A copy of the final report shall be archived with the Analytical Study File in ILT.

PROTOCOL AND SOP DEVIATIONS

There were no protocol or SOP deviations.

STUDY PERSONNEL

PRINCIPAL INVESTIGATOR

ANALYSTS

SUPERVISORY PERSONNEL

SUMMARY OF ANALYTICAL RESULTS

CONCENTRATION OF CALCIUM IN TS03005

Test Substance Stability

ILT AIMS #	Date Prepared	Date Sampled	Date Analyzed	WIL Research Sample #	WIL Research Accession #	Aliquot Phase	Estimated Concentration TS03005, mg/mL	Estimated Concentration wt% Ca	Measured Concentration, wt% Ca	Percent Difference, %
3017330	NA	31-Mar-03	04-Apr-03	NA	NA	NA	neat TS	5.94	5.87	1.2
3020066	NA	14-Apr-03	17-Apr-03	NA	NA	NA	neat TS	5.94	6.14	3.4

Data for TS03005 from

PERCENT DIFFERENCE CALCULATION
Absolute value (((Estimated Concentration-Measured Concentration)/Estimated Concentration)*100)

SUMMARY OF ANALYTICAL RESULTS

CONCENTRATION OF CALCIUM IN TS03005 SUSPENSIONS

Homogeneity Study

ILT AIMS #	Date Prepared	Date Sampled	Date Analyzed	WIL Research Sample #	WIL Research Accession #	Aliquot Phase	Estimated Concentration TS03005, mg/mL	Estimated Concentration wt% Ca	Measured Concentration, wt% Ca	Strata Mean wt% Ca	Overall Mean wt% Ca	Percent Difference, %
3013937	18-Mar-03	18-Mar-03	20-Mar-03	RX-187034-0001	1	Middle	0	0.000	<0.7 wt ppm	<0.7 wt ppm	<0.7 wt ppm	0.0
3013938	18-Mar-03	18-Mar-03	20-Mar-03	RX-187034-0011	1	Middle	0	0.000	<0.7 wt ppm			
3013939	18-Mar-03	18-Mar-03	20-Mar-03	RX-187034-0002	1	Top	30	0.193	0.196	0.199	0.201	1.0
3013940	18-Mar-03	18-Mar-03	20-Mar-03	RX-187034-0012	1	Top	30	0.193	0.201			
3013941	18-Mar-03	18-Mar-03	20-Mar-03	RX-187034-0003	1	Middle	30	0.193	0.201	0.202		0.5
3013942	18-Mar-03	18-Mar-03	20-Mar-03	RX-187034-0013	1	Middle	30	0.193	0.203			
3013943	18-Mar-03	18-Mar-03	20-Mar-03	RX-187034-0004	1	Bottom	30	0.193	0.203	0.203		1.0
3013944	18-Mar-03	18-Mar-03	20-Mar-03	RX-187034-0014	1	Bottom	30	0.193	0.202			
3013945	18-Mar-03	18-Mar-03	20-Mar-03	RX-187034-0005	1	Top	100	0.641	0.645	0.646	0.644	0.3
3013946	18-Mar-03	18-Mar-03	20-Mar-03	RX-187034-0015	1	Top	100	0.641	0.647			
3013947	18-Mar-03	18-Mar-03	20-Mar-03	RX-187034-0006	1	Middle	100	0.641	0.650	0.640		0.6
3013948	18-Mar-03	18-Mar-03	20-Mar-03	RX-187034-0016	1	Middle	100	0.641	0.630			
3013949	18-Mar-03	18-Mar-03	20-Mar-03	RX-187034-0007	1	Bottom	100	0.641	0.648	0.645		0.2
3013950	18-Mar-03	18-Mar-03	20-Mar-03	RX-187034-0017	1	Bottom	100	0.641	0.644			
3013951	18-Mar-03	18-Mar-03	20-Mar-03	RX-187034-0008	1	Top	200	1.27	1.25	1.25	1.25	0.0
3013952	18-Mar-03	18-Mar-03	20-Mar-03	RX-187034-0018	1	Top	200	1.27	1.25			
3013953	18-Mar-03	18-Mar-03	20-Mar-03	RX-187034-0009	1	Middle	200	1.27	1.25	1.26		0.8
3013954	18-Mar-03	18-Mar-03	20-Mar-03	RX-187034-0019	1	Middle	200	1.27	1.26			
3013955	18-Mar-03	18-Mar-03	20-Mar-03	RX-187034-0010	1	Bottom	200	1.27	1.25	1.26		0.8
3013956	18-Mar-03	18-Mar-03	20-Mar-03	RX-187034-0020	1	Bottom	200	1.27	1.26			

PERCENT DIFFERENCE CALCULATION
Absolute value (((Overall Mean-Strata Mean)/Overall Mean)*100)

SUMMARY OF ANALYTICAL RESULTS

CONCENTRATION OF CALCIUM IN TS03005 SUSPENSIONS

Stability Study

ILT AIMS #	Date Prepared	Date Sampled	Date Analyzed	WIL Research Sample #	WIL Research Accession #	Aliquot Phase	Estimated Concentration TS03005, mg/mL	Estimated Concentration wt% Ca	Measured Concentration, wt% Ca	Percent Difference, %
3013939	18-Mar-03	18-Mar-03	20-Mar-03	RX-187034-0002	1	Top	30	0.193	0.196	1.6
3013939	18-Mar-03	18-Mar-03	30-Mar-03	RX-187034-0002	1	Top	30	0.193	0.197	2.1
3013940	18-Mar-03	18-Mar-03	20-Mar-03	RX-187034-0012	1	Top	30	0.193	0.201	4.1
3013940	18-Mar-03	18-Mar-03	30-Mar-03	RX-187034-0012	1	Top	30	0.193	0.201	4.1
3013941	18-Mar-03	18-Mar-03	20-Mar-03	RX-187034-0003	1	Middle	30	0.193	0.201	4.1
3013941	18-Mar-03	18-Mar-03	30-Mar-03	RX-187034-0003	1	Middle	30	0.193	0.203	5.2
3013942	18-Mar-03	18-Mar-03	20-Mar-03	RX-187034-0013	1	Middle	30	0.193	0.203	5.2
3013942	18-Mar-03	18-Mar-03	30-Mar-03	RX-187034-0013	1	Middle	30	0.193	0.203	5.2
3013943	18-Mar-03	18-Mar-03	20-Mar-03	RX-187034-0004	1	Bottom	30	0.193	0.203	5.2
3013943	18-Mar-03	18-Mar-03	30-Mar-03	RX-187034-0004	1	Bottom	30	0.193	0.204	5.7
3013944	18-Mar-03	18-Mar-03	20-Mar-03	RX-187034-0014	1	Bottom	30	0.193	0.202	4.7
3013944	18-Mar-03	18-Mar-03	30-Mar-03	RX-187034-0014	1	Bottom	30	0.193	0.205	6.2
3013945	18-Mar-03	18-Mar-03	20-Mar-03	RX-187034-0005	1	Top	100	0.641	0.645	0.6
3013945	18-Mar-03	18-Mar-03	30-Mar-03	RX-187034-0005	1	Top	100	0.641	0.647	0.9
3013946	18-Mar-03	18-Mar-03	20-Mar-03	RX-187034-0015	1	Top	100	0.641	0.647	0.9
3013946	18-Mar-03	18-Mar-03	30-Mar-03	RX-187034-0015	1	Top	100	0.641	0.643	0.3
3013947	18-Mar-03	18-Mar-03	20-Mar-03	RX-187034-0006	1	Middle	100	0.641	0.650	1.4
3013947	18-Mar-03	18-Mar-03	30-Mar-03	RX-187034-0006	1	Middle	100	0.641	0.656	2.3
3013948	18-Mar-03	18-Mar-03	20-Mar-03	RX-187034-0016	1	Middle	100	0.641	0.630	1.7
3013948	18-Mar-03	18-Mar-03	30-Mar-03	RX-187034-0016	1	Middle	100	0.641	0.647	0.9
3013949	18-Mar-03	18-Mar-03	20-Mar-03	RX-187034-0007	1	Bottom	100	0.641	0.646	0.8
3013949	18-Mar-03	18-Mar-03	30-Mar-03	RX-187034-0007	1	Bottom	100	0.641	0.647	0.9
3013950	18-Mar-03	18-Mar-03	20-Mar-03	RX-187034-0017	1	Bottom	100	0.641	0.644	0.5
3013950	18-Mar-03	18-Mar-03	30-Mar-03	RX-187034-0017	1	Bottom	100	0.641	0.649	1.2
3013951	18-Mar-03	18-Mar-03	20-Mar-03	RX-187034-0008	1	Top	200	1.27	1.25	1.6
3013951	18-Mar-03	18-Mar-03	30-Mar-03	RX-187034-0008	1	Top	200	1.27	1.24	2.4
3013952	18-Mar-03	18-Mar-03	20-Mar-03	RX-187034-0018	1	Top	200	1.27	1.25	1.6
3013952	18-Mar-03	18-Mar-03	30-Mar-03	RX-187034-0018	1	Top	200	1.27	1.24	2.4
3013953	18-Mar-03	18-Mar-03	20-Mar-03	RX-187034-0009	1	Middle	200	1.27	1.25	1.6
3013953	18-Mar-03	18-Mar-03	30-Mar-03	RX-187034-0009	1	Middle	200	1.27	1.26	0.8
3013954	18-Mar-03	18-Mar-03	20-Mar-03	RX-187034-0019	1	Middle	200	1.27	1.26	0.8
3013954	18-Mar-03	18-Mar-03	30-Mar-03	RX-187034-0019	1	Middle	200	1.27	1.25	1.6
3013955	18-Mar-03	18-Mar-03	20-Mar-03	RX-187034-0010	1	Bottom	200	1.27	1.25	1.6
3013955	18-Mar-03	18-Mar-03	30-Mar-03	RX-187034-0010	1	Bottom	200	1.27	1.25	1.6
3013956	18-Mar-03	18-Mar-03	20-Mar-03	RX-187034-0020	1	Bottom	200	1.27	1.26	0.8
3013956	18-Mar-03	18-Mar-03	30-Mar-03	RX-187034-0020	1	Bottom	200	1.27	1.26	0.8

PERCENT DIFFERENCE CALCULATION

Absolute value (((Estimated Concentration-Measured Concentration)/Estimated Concentration)*100)

SUMMARY OF ANALYTICAL RESULTS

CONCENTRATION OF CALCIUM IN TS03005 SUSPENSIONS

Concentration Study

ILT AIMS #	Date Prepared	Date Sampled	Date Analyzed	WIL Research Sample #	WIL Research Accession #	Aliquot Phase	Estimated Concentration TS03005, mg/mL	Estimated Concentration wt% Ca	Measured Concentration, wt% Ca	Percent Difference, %
3015818	18-Mar-03	24-Mar-03	28-Mar-03	RX-187034-0031	2	Middle	0	0.000	<0.7 wt ppm	*
3015819	18-Mar-03	24-Mar-03	28-Mar-03	RX-187034-0032	2	Middle	30	0.193	0.202	4.7
3015820	18-Mar-03	24-Mar-03	28-Mar-03	RX-187034-0033	2	Middle	100	0.641	0.663	3.4
3015821	18-Mar-03	24-Mar-03	28-Mar-03	RX-187034-0034	2	Middle	200	1.27	1.29	1.6
3015937	24-Mar-03	24-Mar-03	28-Mar-03	RX-187034-0039	3	Middle	0	0.000	<0.7 wt ppm	*
3015938	24-Mar-03	24-Mar-03	28-Mar-03	RX-187034-0040	3	Middle	30	0.193	0.198	2.6
3015939	24-Mar-03	24-Mar-03	28-Mar-03	RX-187034-0041	3	Middle	100	0.641	0.667	4.1
3015940	24-Mar-03	24-Mar-03	28-Mar-03	RX-187034-0042	3	Middle	200	1.27	1.30	2.4
3017310	24-Mar-03	31-Mar-03	04-Apr-03	RX-187034-0047	4	Middle	0	0.000	<0.7 wt ppm	*
3017311	24-Mar-03	31-Mar-03	04-Apr-03	RX-187034-0048	4	Middle	30	0.193	0.187	3.1
3017317	24-Mar-03	31-Mar-03	04-Apr-03	RX-187034-0049	4	Middle	100	0.641	0.644	0.5
3017320	24-Mar-03	31-Mar-03	04-Apr-03	RX-187034-0050	4	Middle	200	1.27	1.27	0.0
3017321	31-Mar-03	31-Mar-03	04-Apr-03	RX-187034-0055	5	Middle	0	0.000	<0.7 wt ppm	*
3017322	31-Mar-03	31-Mar-03	04-Apr-03	RX-187034-0056	5	Middle	30	0.193	0.190	1.6
3017323	31-Mar-03	31-Mar-03	04-Apr-03	RX-187034-0057	5	Middle	100	0.641	0.645	0.6
3017324	31-Mar-03	31-Mar-03	04-Apr-03	RX-187034-0058	5	Middle	200	1.27	1.25	1.6
3018752	31-Mar-03	06-Apr-03	11-Apr-03	RX-187034-0063	6	Middle	0	0.000	<0.7 wt ppm	*
3018753	31-Mar-03	06-Apr-03	11-Apr-03	RX-187034-0064	6	Middle	30	0.193	0.192	0.5
3018754	31-Mar-03	06-Apr-03	11-Apr-03	RX-187034-0065	6	Middle	100	0.641	0.644	0.5
3018755	31-Mar-03	06-Apr-03	11-Apr-03	RX-187034-0066	6	Middle	200	1.27	1.27	0.0

11

PERCENT DIFFERENCE CALCULATION

Absolute value (((Estimated Concentration-Measured Concentration)/Estimated Concentration)*100)

*not a significant difference

SUMMARY OF ANALYTICAL RESULTS

CONCENTRATION OF CALCIUM IN TS03005 SUSPENSIONS

Duplicate Analysis

ILT AIMS #	Date Prepared	Date Sampled	Date Analyzed	WIL Research Sample #	WIL Research Accession #	Aliquot Phase	Estimated Concentration TS03005, mg/mL	Estimated Concentration wt% Ca	Measured Concentration, wt% Ca	Relative Percent Difference, %
3013956	18-Mar-03	18-Mar-03	20-Mar-03	RX-187034-0020	1	Bottom	200	1.27	1.26	
3013956 - Dup	18-Mar-03	18-Mar-03	20-Mar-03	RX-187034-0020	1	Bottom	200	1.27	1.25	0.8
3015940	24-Mar-03	24-Mar-03	28-Mar-03	RX-187034-0042	3	Middle	200	1.27	1.30	
3015940 - Dup	24-Mar-03	24-Mar-03	28-Mar-03	RX-187034-0042	3	Middle	200	1.27	1.31	0.8

RELATIVE PERCENT DIFFERENCE CALCULATION

Absolute value (((First Measured Concentration-Duplicate Measured Concentration)/((First Measured Concentration+Duplicate Measured Concentration)/2))*100)

APPENDIX C

Animal Room Environmental Conditions

PUBERTAL ASSAY OF SP 7077 VARIANT (TS03005) IN JUV. FEMALE RATS
TEMPERATURE/HUMIDITY - DAILY SUMMARY REPORT BY STUDY

STUDY SPECIFICATIONS: 187034

DATE IN: 03/06/03 TIME IN: 11:00
DATE OUT: 04/07/03 TIME OUT: 11:00

ROOM SPECIFICATIONS: B ROOM 43
SPECIES: RAT

LOW TEMPERATURE °F: 66.0 HIGH TEMPERATURE °F: 76.0 LOW HUMIDITY: 30.0
LOW TEMPERATURE °C: 18.9 HIGH TEMPERATURE °C: 24.4 HIGH HUMIDITY: 70.0

	TEMPERATURE		HUMIDITY
DATE	MEAN (°F)	MEAN (°C)	MEAN (%RH)
06-Mar-03	70.8	21.6	39.0
07-Mar-03	70.8	21.6	37.6
08-Mar-03	70.8	21.6	36.7
09-Mar-03	70.8	21.6	36.7
10-Mar-03	70.8	21.6	37.2
11-Mar-03	70.8	21.6	37.8
12-Mar-03	70.9	21.6	36.9
13-Mar-03	70.8	21.5	37.5
14-Mar-03	70.8	21.6	35.9
15-Mar-03	70.9	21.6	37.3
16-Mar-03	70.7	21.5	38.7
17-Mar-03	70.8	21.5	41.4
18-Mar-03	70.7	21.5	39.8
19-Mar-03	70.8	21.6	37.1
20-Mar-03	70.7	21.5	41.4
21-Mar-03	70.8	21.6	41.7
22-Mar-03	70.8	21.5	37.4
23-Mar-03	70.9	21.6	36.2
24-Mar-03	70.8	21.5	36.9
25-Mar-03	70.8	21.5	38.4
26-Mar-03	70.8	21.6	35.8
27-Mar-03	70.7	21.5	35.4
28-Mar-03	70.7	21.5	38.0

NOTE: + = VALUE WAS GREATER THAN HIGH RANGE
- = VALUE WAS LESS THAN LOW RANGE
NOTE: MEANS REPRESENT THE MEAN OF THE DAILY VALUES

REPORT 4
VERSION 1.07
4/21/03 09:37

PUBERTAL ASSAY OF SP 7077 VARIANT (TS03005) IN JUV. FEMALE RATS
TEMPERATURE/HUMIDITY - DAILY SUMMARY REPORT BY STUDY

STUDY SPECIFICATIONS: 187034

DATE IN: 03/06/03 TIME IN: 11:00
DATE OUT: 04/07/03 TIME OUT: 11:00

ROOM SPECIFICATIONS: B ROOM 43
SPECIES: RAT

LOW TEMPERATURE °F: 66.0 HIGH TEMPERATURE °F: 76.0 LOW HUMIDITY: 30.0
LOW TEMPERATURE °C: 18.9 HIGH TEMPERATURE °C: 24.4 HIGH HUMIDITY: 70.0

	TEMPERATURE		HUMIDITY
DATE	MEAN (°F)	MEAN (°C)	MEAN (%RH)
29-Mar-03	70.8	21.5	37.7
30-Mar-03	70.8	21.5	37.1
31-Mar-03	70.7	21.5	37.8
01-Apr-03	70.8	21.5	36.7
02-Apr-03	70.7	21.5	39.8
03-Apr-03	70.8	21.6	43.7
04-Apr-03	70.8	21.5	39.0
05-Apr-03	70.8	21.6	38.6
06-Apr-03	70.8	21.5	37.1
07-Apr-03	70.8	21.6	36.2

GRAND STATS	MEAN	MIN	MAX
TEMPERATURE °F	70.8	70.7	70.9
TEMPERATURE °C	21.5	21.5	21.6
HUMIDITY (%RH)	38.0	35.4	43.7
N DAYS	33		

NOTE: + = VALUE WAS GREATER THAN HIGH RANGE
- = VALUE WAS LESS THAN LOW RANGE
NOTE: MEANS REPRESENT THE MEAN OF THE DAILY VALUES

ROOM SPECIFICATIONS:	B ROOM 43		
SPECIES:	RAT		
LOW TEMPERATURE:	66.0	DATE IN:	03/06/03
HIGH TEMPERATURE:	76.0	TIME IN:	11:00
LOW HUMIDITY:	30.0	DATE OUT:	04/07/03
HIGH HUMIDITY:	70.0	TIME OUT:	11:00

ROOM B ROOM 43 SUMMARY

	TEMPERATURE	HUMIDITY
MEAN	70.8	38.0
MIN	69.9	14.4
MAX	72.3	51.5
SD	0.25	3.04
N SAMPLES	765	765
FIRST DAY	03/06/03	
LAST DAY	04/07/03	
N DAYS	33	

NOTE: TEMPERATURE UNITS = DEGREES FAHRENHEIT
HUMIDITY UNITS = % RELATIVE HUMIDITY
NOTE: MEANS REPRESENT THE MEAN OF ALL VALUES

STUDY 187034 SUMMARY

MEAN	70.8	38.0
MIN	69.9	14.4
MAX	72.3	51.5
SD	0.25	3.04
N SAMPLES	765	765
FIRST DAY	03/06/03	
LAST DAY	04/07/03	
N DAYS	33	

NOTE: TEMPERATURE UNITS = DEGREES FAHRENHEIT
HUMIDITY UNITS = % RELATIVE HUMIDITY
NOTE: MEANS REPRESENT THE MEAN OF ALL VALUES

APPENDIX D

eproductive Historical Control Data [Crl:CD®(SD)IGS BR Rats]

Reproductive Historical Control Data
Crl:CD®(SD)IGS BR Rats

GRAND MEAN SUMMARY
PARENTAL AND NEONATAL OBSERVATIONS

ENDPOINT	Mean	SD	Min	Max	25th Quartile	75th Quartile
MEAN NO. PUPS BORN	14.2	1.02	12.0	16.3	13.4	15.0
PUP SURVIVAL INDICES (PND)						
BIRTH-4 (BEFORE SELECTION)	96.2	2.05	91.3	99.3	95.3	97.6
DAYS 4-21 (AFTER SELECTION)	98.9	1.45	95.4	100	98.7	100.0
MEAN PUP WEIGHTS (g) MALE (PND)						
DAY 1	7.0	0.23	6.5	7.4	6.8	7.1
DAY 4 (BEFORE SELECTION)	9.9	0.57	8.6	10.7	9.5	10.4
DAY 7	15.4	1.67	11.7	17.8	15.1	16.6
DAY 14	31.0	3.91	22.5	36.5	28.0	33.6
DAY 21	48.6	6.05	34.9	58	45.3	52.9
MEAN PUP WEIGHTS (g) FEMALE (PND)						
DAY 1	6.6	0.22	6.1	6.9	6.4	6.7
DAY 4 (BEFORE SELECTION)	9.3	0.54	8.1	10	9.0	9.7
DAY 7	14.6	1.60	11	16.8	14.1	15.9
DAY 14	29.7	3.82	21.2	34.7	26.6	32.2
DAY 21	46.4	5.70	33.3	54.8	43.6	50.7
ANOGENITAL DISTANCE (PND 1)						
MALE	5.3	0.32	4.8	5.7	5.3	5.3
FEMALE	3.2	0.43	2.7	3.9	3.1	3.3
MEAN BALANOPREPUTIAL SEPARATION (PND)	44.7	2.18	41.6	49	43.2	46.4
MEAN BODY WEIGHT AT ACQUISITION	227.8	11.70	210.5	248	221.7	230.8
MEAN VAGINAL PATENCY (PND)	33.3	1.68	31.9	38.8	32.5	33.3
MEAN BODY WEIGHT AT ACQUISITION	111.5	6.36	102.8	119.5	106.5	118.0

APPENDIX E

Study Protocol

Study Number:

PROTOCOL AMENDMENT III

Sponsc

Sponsor Study No.: 03-006

A. Title of Study:

A Female Pubertal Assay of SP 7077 Variant (TS03005) Administered Orally in Juvenile Female Rats

B. Protocol Modification:

1) **VII. Experimental Design:**

F. General Observations During the Experimental Period:

2. Body Weights:

Replace the last sentence with the following:

Final body weights will be collected (to the nearest whole gram) prior to euthanasia.

2) **4. Determination of Estrous Cycles:**

Please add the following sentence:

The mean age of first estrus will be determined.

3) **X. Statistical Methods:**

Please add the following sentence:

The mean age of first estrus will be analyzed by a parametric one-way analysis of variance (ANOVA)[2] to determine intergroup difference. If the results of the ANOVA are significant ($p<0.05$), Dunnett's test[3] will be applied to the data to compare the treated groups to the control group.

C. Reason for Protocol Modification:

1) To clarify the protocol requirement for the recording of final body weights.

2 & 3) To add determination of mean age of first estrus to the parameters to be evaluated and describe the method of statistical analysis.

Approved By:

Study Numbe

PROTOCOL AMENDMENT II

Spons

Sponsor Study No.: 03-006

A. Title of Study:

A Female Pubertal Assay of SP 7077 Variant (TS03005) Administered Orally in Juvenile Female Rats

B. Protocol Modification:

1) **I. Objective:**

Replace this section with the following:

The objective of this study is to evaluate the ability of the test article to induce effects on pubertal development in the intact juvenile female rat.

C. Reason for Protocol Modification:

1) Prior to issuance of the protocol, the Sponsor elected to remove evaluation of the thyroid from the study design. The reference to the thyroid in the objective was inadvertently not removed from the protocol.

Approved By:

Study Number

PROTOCOL AMENDMENT I

Sponsor

Sponsor Study No.: 03-006

A. Title of Study:

A Female Pubertal Assay of SP 7077 Variant (TS03005) Administered Orally in Juvenile Female Rats

B. Protocol Modification:

1) The title of the study is revised to the following:

A Female Pubertal Assay of SP 7077 Variant (TS03005) Administered Orally in Juvenile Female Rats

2) **IV. Test Article Data:**

A. Identification: SP 7077 Variant (TS03005)

B. Lot Number: TS03005

3) **VII. Experimental Design:**

D. Organization of Test Groups, Dosage Levels and Treatment Regimen:

1. Organization of Test Groups:

Group Number	Test Article	Dosage Level (mg/kg/day)	Dose Concentration (mg/ml)	Dose Volume (ml/kg)	Number of Females
1	Corn Oil	0	0	5	15
2	TS03005	150	30	5	15
3	TS03005	500	100	5	15
4	TS03005	1000	200	5	15

7034
Amendment I
'o

4) **F. General Observations During the Experimental Period:**

1. Clinical Signs:

Replace the 3rd sentence with the following:

Clinical observations regarding general appearance and behavior will be recorded daily prior to dosing. During the treatment period, the rats will be observed also approximately one hour following dosing and the observations will be recorded. Additional post-dosing observation periods may be necessary and will be documented in the study records.

C. Reason for Protocol Modification:

1) The Sponsor has elected to evaluate a different test article.

2) To document the new test article identification and lot number.

3) To document a change in test article, dosage levels and dose concentrations.

4) To clarify that clinical observations will be performed daily prior to dosing and to add the provision for the collection of additional post-dosing periods.

Approved By:

PROTOCOL

A FEMALE PUBERTAL ASSAY OF SP 7077 VARIANT (TS02045) ADMINISTERED ORALLY IN JUVENILE FEMALE RATS

Sponsor Study Number: 03-006

Submitted To:

I. Objective: The objective of this study is to evaluate the ability of the test article to induce effects on pubertal development and thyroid function in the intact juvenile female rat.

II. Personnel Involved in the Study:

March 5, 2003

III. Study Schedule:

Proposed Animal Receipt Date:	March 6, 2003
Proposed Experimental Start Date:	March 18, 2003
Proposed Experimental Termination Date:	April 7, 2003
Proposed Audited Report Date:	May 23, 2003

IV. Test Article Data:

A. Identification:	SP 7077 Variant (TS02045)
B. Lot Number:	TS02045
C. Purity:	100%
D. Stability:	The test article is considered to be stable under the storage conditions provided by the Sponsor.

E. Physical Description:	Dark brown viscous liquid
F. Storage Conditions:	Store at ambient conditions.
G. Reserve Samples:	Reserve samples of the test article will be taken in accordance with WIL standard operating procedures and stored in the Archives at WIL Research Laboratories, Inc. indefinitely unless otherwise specified.
H. Personnel Safety Data:	To be provided by the Sponsor. It is the responsibility of the Sponsor to notify the testing facility of any special handling requirements for the test article. A material safety data sheet (MSDS) should accompany the test article upon arrival at the laboratory.

V. Test System:

A. Species:	Rat.
B. Strain:	Sprague-Dawley Crl:CD®(SD)IGS BR.
C. Source:	Charles River Laboratories Portage, Michigan
D. Number on Study:	60 Females (maximum of 80 Females purchased). Immature females will be supplied in litters of 10 animals with their own or another (fostering) dam. The immature females will be nine days old upon receipt. Animals not assigned to the study will be transferred to the stock animal colony or will be euthanized by carbon dioxide inhalation and the carcasses discarded.
E. Body Weight Range:	At randomization: 30-50 g. All animals assigned to study will be ± 5 g of the mean.
F. Age:	At start of dosing animals will be 22 days of age.

G. Identification System: The maternal animals will be uniquely identified by a Monel® metal eartag displaying the animal number. The pups will be identified by tail tattoo. Individual cage cards will be affixed to each cage and will display the animal number, group number, study number, dosage level and sex of the animal.

H. Justification for Selection: This species and strain of animal is recognized as appropriate for reproduction studies. [illegible] reproductive historical control data in this species and strain of rat. This animal model has been proven to be susceptible to the effects of reproductive toxicants.

VI. Specific Maintenance Schedule:

A. Animal Housing:

All animals will be initially housed by litter with their own or another (fostering) dam in plastic maternity cages containing ground corncob nesting material (Bed-O'Cobs®). Following randomization, the juvenile female animals will be weaned and housed three animals per cage in plastic maternity (shoebox) cages. The cage bedding will be changed at least three times each week. The cages will be subjected to routine cleaning at a frequency consistent with maintaining good animal health and WIL standard operating procedures. The facilities a [illegible] fully accredited by the Association for Assessment and Accreditation of Laboratory Animal Care International (AAALAC International).

B. Environmental Conditions:

Controls will be set to maintain an average daily temperature of 71 ± 5°F (22 ± 3°C) and an average daily relative humidity of 50 ± 20%. Temperature and relative humidity will be monitored continuously. Data for these two parameters will be scheduled for automatic collection on an hourly basis. Fluorescent lighting controlled by light timers will provide illumination for a 12-hour light/dark photoperiod. Temporary adjustments to the light/dark cycles may be made to accommodate protocol-specified activities. The ventilation rate will be set at a minimum of 10 room air changes per hour, 100% fresh air.

C. Drinking Water:

Reverse osmosis-purified water will be available *ad libitum*. Filters servicing the automatic watering system are changed regularly according to WIL standard operating procedures. The municipal water supplying the laboratory is analyzed according to [illegible] standard operating procedures on a routine basis to assure that contaminants are not present in concentrations that would be expected to affect the outcome of the study.

D. Basal Diet:

PMI Nutrition International, LLC Certified Rodent LabDiet® 5002 will be offered *ad libitum* during the study. Periodic analyses of the certified feed are performed by the manufacturer to ensure that heavy metals and pesticides are not present at concentrations that would be expected to affect the outcome of the study. Results of the analyses are provided to [illegible] by the manufacturer and will be placed in the study records. Feeders will be changed and sanitized once per week.

VII. Experimental Design:

A. Animal Receipt and Quarantine:

Each animal will be inspected by a qualified technician upon receipt. Rats judged to be in good health and suitable as test animals will be immediately placed in quarantine for nine (if animals are received at ten days of age, randomized at age 21 days, with dosing starting at age 22 days) days. All rats will be initially sexed and weighed. Maternal animals will be permanently identified with a metal ear tag, and juvenile animals will be identified by tail tattoo. During the quarantine period, each rat will be observed twice daily for changes in general appearance and behavior. Prior to the start of the in-life phase, those animals judged to be suitable test subjects will be identified and receive a detailed physical examination at the time of animal selection for randomization.

B. Randomization:

At the conclusion of the quarantine period (animals 21 days of age), animals judged to be suitable test subjects and meeting acceptable body weight requirements, will be assigned at random using a computer program. At that time, the animal numbers and corresponding body weights will be entered into the WIL Toxicology Data Management System (WTDMS™). A printout containing the animal numbers and individual group assignments will be generated based on body weight stratification into a block design. Animals will

then be weaned and arranged into the groups according to the printout. Each of 4 groups will consist of fifteen females. If after randomization statistically significant differences between groups exist, new randomizations will be generated until group mean body weights are homogeneous.

C. Route and Rationale of Test Article Administration:

The route of administration will be oral (gavage). Historically, this route has been used extensively for studies of this nature. Appropriate-sized steel, ball-tipped, flexible Teflon® dosing cannulae will be used for the oral administration by gavage. Any losses, or incomplete dosing will be recorded.

D. Organization of Test Groups, Dosage Levels and Treatment Regimen:

1. Organization of Test Groups:

The dosage levels were determined from the results of previous studies and were provided by the Sponsor Representative after consultation with the WIL Study Director. The following table presents the study group arrangement.

Group Number	Test Article	Dosage Level (mg/kg/day)	Dose Concentration (mg/ml)	Dose Volume (ml/kg)	Number of Females
1	Corn Oil	0	0	5	15
2	TS02045	50	10	5	15
3	TS02045	150	30	5	15
4	TS02045	500	100	5	15

2. Vehicle Control Article:

Corn oil.

3. Treatment Regimen:

The test and control articles will be administered as single daily doses beginning on day 22 and continuing through 41 days of age. All animals will be dosed at approximately the same time each day, and the time of dosing will be recorded for each animal.

4. Adjustment of Dosages:

Individual doses will be calculated based on each daily body weight to provide the proper dosage. Individual animal body weights and individual animal dosages will be recorded.

E. Preparation and Analysis of Test Article Formulations:

1. Method and Frequency of Preparation:

Based on the physical characteristics of the test article, appropriate methods will be used to ensure the best possible formulations of the test article in the vehicle. Dosing formulations of the test article will be prepared weekly. The study director or the deputy director or designee will visually inspect the formulations prior to initiation of dosing. This visual inspection will be performed to assure that the formulations are visibly homogeneous and acceptable for dosing. Any special procedures required for formulation will be documented according to Good Laboratory Practices and presented in the final report of this study.

2. Homogeneity and Stability of Test Article Formulation:

Dosing mixture homogeneity will be collected prior to the initiation of test article administration. While undergoing stirring in the beaker, the following sample aliquots (5 mL) will be drawn for analysis: control, three aliquots (from the middle); all treatment groups, nine aliquots (3 each from the top, middle and bottom). Two of the three samples will be sent to

analysis of homogeneity and stability over a ten-day period. The samples will be shipped under ambient conditions. The remaining sample from each dose level and strata will be stored under normal laboratory conditions for possible future analysis.

3. Concentration Analysis:

Samples of the dosing mixtures will be collected on the first and seventh day of each weekly preparation. At each time point, two 5-mL aliquots will be taken from each dose level (middle stratum), including the control group. The dosing mixture will be thoroughly mixed before taking each sample. One sample from each dose level will be analyzed; the remaining sample will be retained by the Testing Laboratory for possible future analysis.

Dosing mixture samples for homogeneity, stability and concentration of the test article at all dose levels, including the control, will be analyzed by the Sponsor. The methods employed will be one or more of the following:

Concentration and stability data will be evaluated using percent difference. The acceptable tolerance between the theoretical and measured values is 15%.

Mixtures will be considered homogeneous if the difference between the overall group mean and the strata mean is 10% or less.

4. Sample Handling and Shipment:

Each 5-mL sample will be placed in a glass vial with a Teflon-lined lid. The vial plus sample weight will be recorded with an accuracy of ± 0.0005 g. Each sample will be stored at ambient temperature. Each sample container will be labeled with the following information:

Accession Number
Sponsor's Reference Number
Testing Laboratory Study Number
Test Article Name
Dose Level (mg/kg)
Dosing Mixture Concentration (mg/mL)
Preparation Date
Sampling Date
Weight of Sample

The sample shall be packed in a suitable container to maintain the temperature conditions specified in Section IV.F. during transit plus an adequate margin of safety for any transit delays. The sample shall be sent by

as notification shall include test article and study identification, carrier, and estimated time/date of arrival. Sample shipments shall be accompanied by an inventory sheet describing the samples contained in the shipment with the information described above.

F. General Observations During the Experimental Period:

1. Clinical Signs:

The rats will be observed twice daily for appearance, behavior, moribundity and mortality. A detailed physical examination will be conducted at the time of randomization. The rats will also be observed at the time of dosing and again approximately one hour after administration. Observations shall include, but are not limited to, evaluations for changes in appearance of the skin and fur, eyes and mucous membranes, respiratory, circulatory, autonomic and central nervous system functions, somatomotor activity and behavior patterns. Observations will be recorded.

2. Body Weights:

Body weights will be recorded individually on a daily basis (to the nearest 0.1 gram) beginning one day prior to the start of dosing. Final body weights will be collected prior to euthanasia.

3. Vaginal Perforation:

Each female pup (15/group) will be observed daily for vaginal perforation beginning on PND 25 as described by Adams et al.[1] Examination of the females will continue daily until vaginal perforation is present. The body weight of each female will be recorded on the day of acquisition of vaginal perforation.

4. Determination of Estrous Cycles:

Daily vaginal smears will be performed to determine the stage of estrus beginning on the day vaginal perforation is observed. Smearing will continue through the day of necropsy.

G. Euthanasia:

On PND 42, the animals will be euthanized by carbon dioxide inhalation, and the time of euthanasia will be recorded for each animal. Any animals not expected to survive until the following dosing period or until the scheduled euthanasia will be euthanized as described above.

VIII. Anatomic Pathology:

A. Macroscopic Examination:

A complete necropsy examination will be conducted on all animals dying spontaneously or euthanized *in extremis*. This will include examination of the external surface, all orifices, the external surface of the brain and spinal cord and the thoracic, abdominal and pelvic cavities including viscera. A complete necropsy will not be conducted on animals surviving to study termination. The following tissues will be collected and placed in 10% neutral-buffered formalin:

Ovaries	Uterine Horns (Four sections per horn)
Cervix and Uterine Body (Two sections)	Vagina
Thyroid	All gross (internal) lesions

B. Organ Weights:

1. Uterine Weights:

Wet and blotted uterine weights will be measured for all animals surviving to the scheduled necropsy. Uterine weights will not be collected for any animals found dead or euthanized *in extremis*.

The uterus will be harvested from all animals using the following procedure. The harvesting of uteri will be performed in the same sequence as which dosing occurred. The pubic symphysis will be opened and each ovary and uterine horn will be detached from the dorsal abdominal wall. The ovaries are separated from the uterine horns at the oviduct/uterus junction. The urinary bladder and ureters will be removed from the ventral and lateral side of the uterus and vagina. The fibrous adhesion between the rectum and vagina is then detached until the junction of the vaginal orifice and perineal skin is identified. The uterus and vagina are detached from the body by incising the vaginal wall just above the junction between the perineal skin. The excess fat and adnexa will be trimmed away. The vagina is then removed from the uterus, leaving the cervix intact and attached to the uterus for uterus weight measurement. Care is to be taken during uterus harvesting such that the luminal contents are retained. A record will be made if any luminal contents are lost. The uterus will be transferred to a uniquely marked and tared plastic Petri dish with care to avoid desiccation before weighing. The Petri dish should be lined with saline-moistened filter paper (or equivalent) and covered to minimize desiccation.

The uterus harvesting and weighing procedure will be done in the order described below.

1. Animal is euthanized and uterus harvested.
2. Uterus (with luminal fluid) is immediately transferred to a Petri dish (lined with saline-moistened filter paper or equivalent) that was tared immediately prior to the transfer.
3. The uterus' wet weight is recorded to the nearest 0.1 mg.
4. The uterus is opened and blotted (see below).
5. The uterus is placed in a Petri dish (lined with saline-moistened filter paper or equivalent) that was tared immediately prior to the transfer.
6. The uterus' blotted weight is recorded to the nearest 0.1 mg.

Immediately following collection of the wet weight, the uterus will be individually processed by opening the uterine wall and carefully blotting the excess fluid. Both uterine horns will be pierced and cut longitudinally with small surgical scissors, placed on filter paper (ex. Whatman No. 3) and gently pressed with another piece of dry filter paper to absorb the luminal fluid. The procedure will not be so severe as to render the tissue unacceptable for histopathologic analysis, as this additional investigation may be performed at the discretion of the Sponsor (by protocol amendment).

2. Ovary, Liver, Pituitary and Adrenal Weights:

The following organs from all females euthanized at scheduled termination will be weighed (to the nearest 0.1 mg):

Ovaries
Liver
Pituitary gland
Adrenal glands

To minimize systematic bias in the weighing procedures, organ harvesting and weighing procedures will be divided as equally as possible among the prosecting and weighing technicians, such that all animals from a group are not processed by a single individual.

C. Microscopic Examination:

Following collection of wet uterine weight, blotting of the uterus and collection of blotted uterine weight, each uterus will be placed in a uniquely identified jar of 10% neutral-buffered formalin and preserved for possible

microscopic examination. The vagina, ovaries, and thyroid from each animal will be similarly preserved with the uterus.

Microscopic examination of hematoxylin-eosin stained paraffin sections may be performed on the following tissues from all animals at the discretion of the Sponsor (additional cost).

Ovaries	Uterine Horns (Four sections per horn)
Cervix and Uterine Body (Two sections)	Vagina (Two sections)
Thyroid	All gross (internal) lesions

IX. Duration of Study:

The conduct of this study will require approximately five weeks for acclimation, dosing and necropsy.

X. Statistical Methods:

Body weights, body weight gains, organ weights, uterine weights (wet and blotted), luminal fluid weights, mean days of acquisition of vaginal perforation and estrous cycle length will be analyzed by a parametric one-way analysis of variance (ANOVA)[2] to determine intergroup difference. If the results of the ANOVA are significant ($p<0.05$), Dunnett's test[3] will be applied to the data to compare the treated groups to the control group.

XI. Quality Assurance:

The study will be audited by the WIL Quality Assurance Unit while in progress to assure compliance with the study protocol and protocol amendments, WIL standard operating procedures and the appropriate provisions of EPA/TSCA and FIFRA Good Laboratory Practice Standards published in the Federal Register (40 CFR Part 792 and 40 CFR Part 160) and the OECD Good Laboratory Practice Regulations [C (97) 186/Final]. The raw data and draft report will be audited by the ity Assurance Unit prior to submission to the Sponsor Representative to assure that the final report accurately describes the conduct and the findings of the study.

This study will be included on the WIL master list of regulated studies.

XII. Records to be Maintained:

All original raw data records, as defined by WIL SOPs and the applicable GLPs, will be stored as described in Section XIII. in the Archives at

XIII. Work Product:

The Sponsor will have title to all documentation records, raw data, slides, specimens and other work product generated during the performance of the study. All work product, including raw paper data, pertinent electronic storage media and specimens will be returned to the Sponsor after a period of six months or following issuance of the final report. All work product will be stored in compliance with regulatory requirements.

Any work product, including documents, specimens, and samples, that are required by this protocol, its amendments, or other written instructions of the Sponsor, to be shipped b[illegible] other location will be appropriately packaged and labeled as defined by [illegible]Ps and delivered to a common carrier for shipme[illegible] will not be responsible for shipment following delivery to the common carrier.

XIV. Reports:

The final report will consist of an abbreviated summary report, including data tables and an interpretation and discussion of the study results.

[illegible] provide one copy of an audited draft report, submitted in a timely manner upon completion of the study prior to issuance of the final report. One revision will be permitted as part of the cost of the study, from which the Sponsor's reasonable revisions and suggestions will be incorporated into the final report, as appropriate. Additional changes or revisions may be made, at extra cost. It is expected that the Sponsor will review the draft report and provide comments t[illegible] within a two-month time frame following submission. [illegible]ll submit the final report within one month following receipt of comments. Two copies of the final report (1 unbound, 1 PDF electronic copy on CD) will be provided. Requests for additional copies of the final report may result in additional charges.

XV. Animal Welfare Act Compliance:

This study will comply with all applicable sections of the Final Rules of the Animal Welfare Act regulations (9 CFR Parts 1, 2 and 3). The Sponsor should make particular note of the following:

- The Sponsor Representative's signature on this protocol documents for the Study Director the Sponsor's assurance that the study described in this protocol does not unnecessarily duplicate previous experiments.

3. Dunnett, C.W. (1964) New tables for multiple comparisons with a control. Biometrics, 20:482-491.

XVIII. Protocol Approval:

FINAL ABBREVIATED REPORT

STUDY TITLE

A FEMALE PUBERTAL ASSAY OF SP 7077 VARIANT (TS03017) AND SP 7077 VARIANT (TS03018) ADMINISTERED ORALLY IN JUVENILE FEMALE RATS

STUDY NUMBER

[ ]

SANITIZED (Non-CBI)

STUDY DIRECTOR

[ ]

STUDY INITIATION DATE

June 19, 2003

STUDY COMPLETION DATE

December 11, 2003

PERFORMING LABORATORY

[ ]

SPONSOR STUDY NUMBER

03-024

SPONSOR

[ ]

COMPLIANCE STATEMENT

This study, designated WIL-187039, was conducted in compliance with the United States Environmental Protection Agency (EPA) Good Laboratory Practice Standards (40 CFR Part 160), October 16, 1989; the United States Environmental Protection Agency (EPA) Good Laboratory Practice Standards (40 CFR Part 792), September 18, 1989; the Organisation for Economic Cooperation and Development (OECD) Principles of Good Laboratory Practice [C (97) 186/Final], November 26, 1997; the standard operating procedures of WIL Research Laboratories, Inc., and the protocol as approved by the sponsor.

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1. SUMMARY

1.1. OBJECTIVE

The objective of the study was to evaluate the ability of the test articles to induce effects on pubertal development in the intact juvenile female rat.

1.2. STUDY DESIGN

SP 7077 Variant (TS03017) or SP 7077 Variant (TS03018), in the vehicle, Mazola® corn oil, was administered orally by gavage once daily for 20 consecutive days to three groups each of 15 Crl:CD®(SD)IGS BR immature female rats. Dosage levels for each test article were 60, 250 and 1000 mg/kg/day, and the dose volume was 5 mL/kg. A concurrent control group received the vehicle on a comparable regimen. These dosage levels were determined from the results of previous studies and were provided by the sponsor representative after consultation with the study director.

Dosing procedures were performed from July 8 through 29, 2003, when the animals were 22 to 41 days of age; the study start was staggered, based on age. At the initiation of dose administration, body weights ranged from 33.9 to 56.0 g. The following table presents the study group assignment:

Group Number	Test Article	Dosage Level (mg/kg/day)	Dose Concentration (mg/mL)	Dose Volume (mL/kg)	Number of Females
1	Corn Oil	0	0	5	15
2	TS03017	60	12	5	15
3	TS03017	250	50	5	15
4	TS03017	1000	200	5	15
5	TS03018	60	12	5	15
6	TS03018	250	50	5	15
7	TS03018	1000	200	5	15

Due to spacing constraints, the dose group names are presented on the tables and figures as corn oil, TS03017 60, TS03017 250, TS03017 1000, TS03018 60, TS03018 250 and

TS03018 1000 for the vehicle control, 60, 250 and 1000 mg/kg/day TS03017 and 60, 250 and 1000 mg/kg/day TS03018 groups, respectively.

Preparation, storage and sampling of the control and test article formulations were conducted as follows. For the control group, the appropriate amount of the vehicle was dispensed into a storage container and stirred throughout use. The SP 7077 (TS03017) and SP 7077 (TS03018) dosing formulations were prepared by weighing an appropriate amount of test article for each group into a tared, calibrated storage container. A stir bar and approximately 80% of the vehicle were added to the storage container, and the mixture was stirred until uniform. The formulations were heated in a water bath (45°C to 58°C). The appropriate volume of vehicle was added to bring each formulation to the calibration mark, and the preparations were stirred until uniform and throughout use. The SP 7077 (TS03017) and SP 7077 (TS03018) dosing formulations were prepared approximately weekly, divided into aliquots for daily dispensation and stored at room temperature. Three samples from the control group and three sets of samples from the test article formulations were collected prior to the initiation of dose administration. Two sets of samples for concentration verification were collected on each day of preparation and two sets were collected on the last day of use of each preparation. Two sets of homogeneity/stability samples and three sets of concentration samples were shipped under ambient conditions to the sponsor for homogeneity, stability and concentration analyses; the remaining samples were stored under normal laboratory conditions at WIL Research Laboratories, Inc., for possible future analysis.

Thirteen dams with 9 to 14 female pups each (162 pups total) were received from Charles River Laboratories, Inc., Portage, Michigan, on June 26, 2003. The pups were 8 to 10 days old upon receipt. Pups were initially housed in plastic maternity cages (by litter with their own or a fostering dam) during the acclimation period (12 to 14 days) until randomization of the pups on postnatal day (PND) 21. Following randomization, the female pups were weaned and housed three per cage in plastic maternity cages. Environmental controls were set to maintain an average daily temperature of 71±5°C and

an average daily relative humidity of 50±20%. Actual mean daily temperatures ranged from 70.7° to 71.0°F (21.5° to 21.6°C) and mean daily relative humidity ranged from 53.2% to 56.1%. Light timers were calibrated to provide a 12-hour light (6 a.m. to 6 p.m.)/12-hour dark photoperiod. Air handling units were set to provide approximately 10 fresh air changes per hour. PMI Nutrition International, LLC, Certified Rodent LabDiet® 5002 and reverse-osmosis-purified water were offered *ad libitum*.

All animals were observed twice daily for appearance, behavior, mortality and moribundity. A detailed physical examination was performed at the time of randomization. The rats were also observed daily (prior to dosing) and approximately 1 hour following dose administration; additional observations were recorded as necessary. Clinical findings at the time of dose administration were recorded when observed. Individual body weights were recorded daily. Each female pup was observed daily for vaginal patency beginning on PND 25 as described by Adams, *et al.*[1] Examination continued daily until vaginal patency was observed. Body weights were recorded on the day that vaginal patency was noted. Beginning on the day that vaginal patency was observed, vaginal lavages were performed daily, through the day of euthanasia, and the slides were examined to determine the stage of estrus. The mean estrous cycle length was calculated and reported for complete estrous cycles *(i.e.*, the total number of returns to metestrus [M] or diestrus [D] from estrus [E] or proestrus [P] until the day of euthanasia), beginning on the day vaginal patency was observed. Estrous cycle length was determined by counting the number of days from the first M or D in a cycle to the first M or D in a subsequent cycle. In addition, the mean age at the onset of the first estrous cycle was calculated using the first day each animal was observed to be in estrus. A gross necropsy was performed on animals that were found dead. All surviving animals were euthanized on PND 42 by carbon dioxide inhalation. The uterus (wet and blotted), ovaries, liver, pituitary gland and adrenal glands were weighed. Luminal fluid weight was calculated by subtracting the blotted uterus weight from the wet uterus weight. A gross necropsy was not performed. The ovaries, uterus (horns and

body), cervix, vagina, thyroid glands and gross lesions were retained from all females, including those found dead, for possible microscopic examination.

Statistical tests were performed using appropriate computing devices or programs. Analyses were conducted using two-tailed tests for minimum significance levels of 1% and 5%, comparing each test article-treated group to the control group. Each mean was presented with the standard deviation (S.D.) and the number of animals (N) used to calculate the mean. Mean body weights, body weight changes, days of acquisition of vaginal patency, estrous cycle length, age at the first occurrence of estrus, luminal fluid weights and absolute and relative organ weights were subjected to a parametric one-way analysis of variance (ANOVA)[2] to determine intergroup differences. If the ANOVA revealed statistically significant ($p<0.05$) intergroup variance, Dunnett's test[3] was used to compare the test article-treated groups to the control group.

1.3. KEY STUDY DATES

Date(s)	Event(s)
June 26, 2003	Experimental starting date (animal receipt)
July 8, 2003	Experimental start date (first day of dose administration)
July 8-29, 2003	Test article administration
July 30, 2003	Experimental termination date (last necropsy)

1.4. RESULTS - SP 7077 VARIANT (TS03017)

All animals in the TS03017-treated groups survived to the scheduled euthanasia. Salivation was observed 1 hour following dose administration in the 250 and 1000 mg/kg/day TS03017 groups. The increase was observed in a dose-related manner. This finding was attributed to the test article. Single occurrences of clear material around the mouth were observed in one animal each in the 250 and 1000 mg/kg/day TS03017 groups. This finding was related to salivation. No other TS03017-related findings were observed. A single occurrence of rales was observed in the 250 mg/kg/day TS03017

group. This finding is common in laboratory rats, was not observed in the 1000 mg/kg/day TS03017 group, and was not attributed to the test article.

No test article-related effects on body weight or body weight gain were observed in the 60, 250 and 1000 mg/kg/day TS03017 groups. Differences from the control group values were slight and were not statistically significant.

Vaginal patency was achieved earlier in the 60, 250 and 1000 mg/kg/day TS03017 groups than in the control group. The differences were significant ($p<0.01$) for the 250 and 1000 mg/kg/day TS03017 groups. Mean days of acquisition were 34.5, 33.3, 32.1 and 27.7 days in the control, 60, 250 and 1000 mg/kg/day TS03017 groups, respectively. The value in the 1000 mg/kg/day TS03017 group was below the minimum mean value in the historical control data (31.9 days). While the 60 mg/kg/day TS03017 group value was not statistically significant and was within the range of the historical control data, the earlier achievement of vaginal patency (1 day earlier than the concurrent control group) was considered potentially related to TS03017 because of the dose-related trend in comparison to the 250 and 1000 mg/kg/day TS03017 groups. Since the females were younger on the day that vaginal patency was observed, mean body weights on the day of acquisition in the 250 and 1000 mg/kg/day TS03017 groups were also lower (significant at $p<0.05$ or $p<0.01$) than the control group value. These differences were consistent with estrogenic effects of the test article.

No differences in mean estrous cycle length were observed when comparing the TS03017-treated groups to the control group. Estrous cycle lengths in females of this age are highly variable, and combined with the limited number of animals and days of evaluation, evidence of a test article-related effect was inconclusive. The mean first occurrences of estrus in the 60, 250 and 1000 mg/kg/day TS03017 groups were earlier than in the control group. The difference was significant ($p<0.01$) in the 1000 mg/kg/day TS03017 group. The differences in all TS03017-treated groups were observed in a dose-related manner and were consistent with the estrogenic effects of the test article.

Test article-related reductions in mean absolute and relative (to final body weight) ovary weights were observed in the 1000 mg/kg/day TS03017 group; the differences from the control group were not statistically significant. Mean uterus weights (wet and blotted) in the TS03017-treated groups were similar to the control group values. Luminal fluid data were highly variable; however, mean luminal fluid weights in all TS03017-treated groups were similar to the control group value. Mean absolute and relative liver weights in the 1000 mg/kg/day TS03017 group and mean absolute and relative adrenal gland weights in the 60, 250 and 1000 mg/kg/day TS03017 groups were increased. The differences were significant at $p<0.05$ or $p<0.01$ at 250 and 1000 mg/kg/day TS03017 groups compared to the control group values. These increases were considered test article-related. No other TS03017-related or statistically significant differences in organ weights were observed in the test article-treated groups.

1.5. CONCLUSIONS - SP 7077 VARIANT (TS03017)

Based on the results of this study, the test article, SP 7077 Variant TS03017, administered orally to juvenile female rats exhibited estrogenic effects in the 60, 250 and 1000 mg/kg/day groups, as evidenced by early achievement of vaginal patency (all TS03017 groups) and occurrence of the first estrus (250 and 1000 mg/kg/day TS03017 groups) and by decreased mean ovary weights (1000 mg/kg/day TS03017 group).

1.6. RESULTS - SP 7077 VARIANT (TS03018)

Two females in the 1000 mg/kg/day TS03018 group were found dead at 24 days of age, following two doses. These animals had no clinical findings prior to death. There were no internal findings for these females at necropsy. These mortalities were potentially test article-related. All other animals survived to the scheduled euthanasia. Salivation was observed at the time of dose administration (1000 mg/kg/day TS03018 group only) and/or 1 hour following dose administration in the 60, 250 and 1000 mg/kg/day TS03018 groups. The increase was observed in a dose-related manner. This finding was attributed to the test article. Single occurrences of clear material around the mouth were observed in two animals in the 1000 mg/kg/day TS03018 group. This finding was related to salivation. A slight increased incidence of yellow anogenital material was observed in the 1000 mg/kg/day TS03018 group at the daily observations. This finding is common in laboratory rats, and was not attributed to the test article.

Test article-related reductions in mean body weight gains were observed in the 1000 mg/kg/day TS03018 group (statistically significant at $p<0.05$ or $p<0.01$) compared to the control group values during the first three dosing intervals (PND 22-25). Mean body weight gains in this group were similar to control group values throughout the remainder of the study. When the entire treatment period (PND 22-42) was evaluated, mean body weight gain in the 1000 mg/kg/day TS03018 group was similar to that in the control group. Mean body weights in this group were similar to the control group values throughout the study. No TS03018-related effects on mean body weights or body weight gains were observed in the 60 and 250 mg/kg/day groups. Differences from the control group were slight and not statistically significant.

Vaginal patency was achieved earlier in the 60, 250 and 1000 mg/kg/day TS03018 groups than in the control group. The differences were significant ($p<0.01$). Mean days of acquisition were 34.5, 28.3, 27.9 and 27.6 days in the control, 60, 250 and 1000 mg/kg/day TS03018 groups, respectively. The values in all TS03018-treated

groups were below the minimum mean value in the [ ] historical control data (31.9 days). Since the females were younger on the day that vaginal patency was observed, mean body weights on the day of acquisition in the 60, 250 and 1000 mg/kg/day TS03018 groups were also lower (significant at $p<0.01$) than the control group value. These differences were consistent with estrogenic effects of the test article.

No differences in mean estrous cycle length were observed when comparing the TS03018-treated groups to the control group. Estrous cycle lengths in females of this age are highly variable, and combined with the limited number of animals and days of evaluation, evidence of a test article-related effect was inconclusive. The mean first occurrences of estrus in all TS03018-treated groups were earlier than in the control group. The differences were significant ($p<0.05$ or $p<0.01$) in the 60 and 1000 mg/kg/day TS03018 groups; all differences were consistent with the estrogenic effects of the test article.

Test article-related reductions in mean absolute and relative (to final body weight) ovary weights were observed in the 60, 250 and 1000 mg/kg/day TS03018 groups; the differences from the control group for the 250 and 1000 mg/kg/day TS03018 groups were statistically significant ($p<0.05$ or $p<0.01$). Mean absolute and relative uterus (wet and blotted) weights in the 250 and 1000 mg/kg/day TS03018 groups were also reduced (significant at $p<0.05$ for the blotted weight in the 1000 mg/kg/day TS03018 group) compared to the control group values. The reductions in mean uterine weights were attributed to the test article; however, they were not considered indicative of estrogen modulation. These reductions in mean uterine weights, in the presence of early achievement of vaginal patency and occurrence of the first estrus, and decreases in mean ovary weights, is inconsistent with estrogenicity. A statistically significant ($p<0.05$) increase in absolute wet uterus weight was observed in the 60 mg/kg/day TS03018 group. Because no dose-related trend was evident, this increase was attributed to biological variation. Luminal fluid data were highly variable; however, mean luminal fluid weights in all test article-treated groups were similar to the control group value. Mean absolute

and relative liver weights in the 250 and 1000 mg/kg/day TS03018 groups and mean absolute and relative adrenal gland weights in the 60, 250 and 1000 mg/kg/day TS03018 groups were increased. With the exception of the mean relative adrenal gland weight in the 60 mg/kg/day TS03018 group, the differences were significant ($p<0.05$ or $p<0.01$) compared to the control group values. These increases were considered test article-related. No other test article-related or statistically significant differences in organ weights were observed in the test article-treated groups.

1.7. CONCLUSIONS - SP 7077 VARIANT (TS03018)

Based on the results of this study, the test article, SP 7077 Variant TS03018, administered orally to juvenile female rats exhibited estrogenic effects in the 60, 250 and 1000 mg/kg/day groups, as evidenced by early achievement of vaginal patency and occurrence of the first estrus and by decreased mean ovary weights.

2. KEY STUDY PERSONNEL AND REPORT SUBMISSION

Study Supervisors:

Report Prepared By:

Report Reviewed By:

Report Approved and Submitted By:

3. QUALITY ASSURANCE UNIT STATEMENT

3.1. PHASES INSPECTED

Date(s) of Inspection(s)	Phase Inspected	Date(s) Findings Reported to Study Director	Date(s) Findings Reported to Management
7/28/03	Necropsy	7/28/03	8/22/03
8/13/03	Study Records (Rx-1)	8/13/03	9/30/03
8/14/03	Study Records (I-1)	8/18/03	9/30/03
8/14/03	Study Records (I-2)	8/18/03	9/30/03
8/14/03	Study Records (N-1)	8/18/03	9/30/03
9/4/03	Draft Report	9/4/03	9/30/03

This study was inspected in accordance with the U.S. EPA Good Laboratory Practice Standards (40 CFR Parts 160 and 792), the OECD Principles of Good Laboratory Practice, the standard operating procedures of [ ] and the sponsor's protocol and protocol amendments with the following exceptions. The data located in Appendices A (Certificates of Analysis) and B (Analytical Chemistry Report) were the responsibility of the sponsor. Quality Assurance findings, derived from the inspections during the conduct of the study and from the inspections of the raw data and draft report, are documented and have been reported to the study director. A status report is submitted to management monthly.

This report accurately reflects the data generated during the study. The methods and procedures used in the study were those specified in the protocol, its amendments and the standard operating procedures of [

The raw data, the retention sample(s), if applicable, and the final report will be stored in the Archives at [another location specified by the sponsor.

3.2. APPROVAL

This study was inspected according to the criteria discussed in Section 3.1.

Report Audited By:

4. REFERENCES

1. Adams, J.; Buelke-Sam, J.; Kimmel, C.A.; Nelson, C.J.; Reiter, L.W.; Sobotka, T.J.; Tilson, H.A.; Nelson, B.K. Collaborative behavioral teratology study: protocol design and testing procedure. *Neurobehavioral Toxicology and Teratology* **1985,** *7,* 579-586.

2. Snedecor, G.W.; Cochran, W.G. One Way Classifications; Analysis of Variance. In *Statistical Methods*, 7th ed.; The Iowa State University Press: Ames, IA, **1980**; pp 215-237.

3. Dunnett, C.W. New tables for multiple comparisons with a control. *Biometrics* **1964,** *20,* 482-491.

5. DEVIATIONS FROM THE PROTOCOL

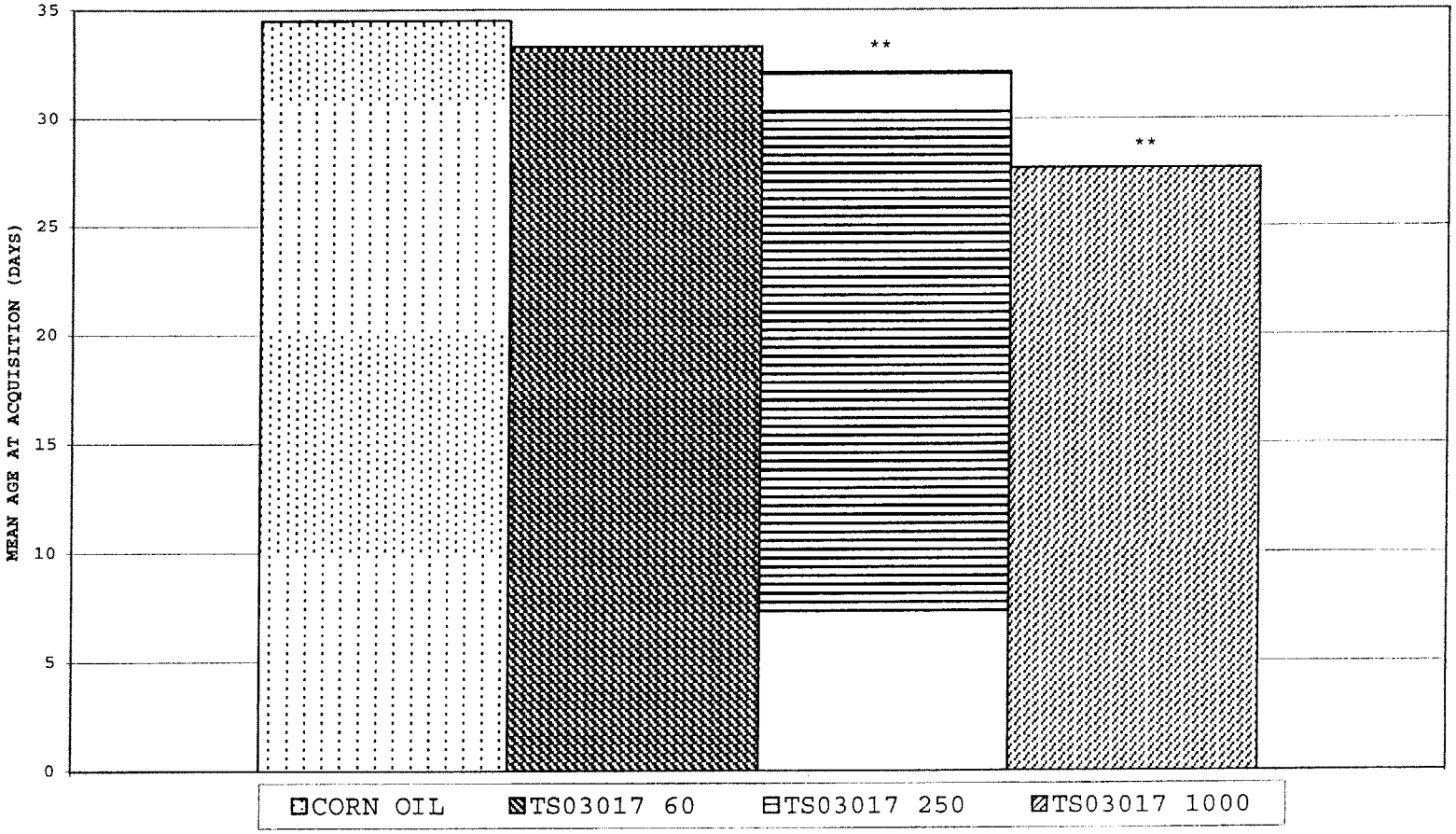
This study was conducted in accordance with the protocol and protocol amendments, except for the following.

- At the time of randomization, the body weight range was to be ±5 g of the mean for animals assigned to the study. The actual range was from -10 g to +7 g of the mean.
- Pups were identified by tail tattoo. Prior to randomization, pups were also ear-tagged.
- Duplicate samples (5 mL each) were to be collected for concentration analysis on the first and last day of use of each weekly formulation. On July 21, 2003, only one sample was collected on the last day of use for the July 14, 2003 preparation, and only one sample was collected on the first day of use for the July 21, 2003 preparation.
- The use of Teflon-lined lids on containers used to store dosing formulation samples was not documented. The only type of container used for these samples has Teflon-lined lids.
- The dosing formulations were to be prepared weekly; however, the last formulations prepared were used for 8 days. The sponsor has provided information that both test articles are stable in corn oil for 10 days.
- Dosing formulation samples were to be weighed to ±0.0005 g. Samples collected on June 26, 2003 were not weighed to this accuracy. All other samples collected were weighed to a minimum of ±0.0005 g.
- The ovaries, uterus, cervix, vagina and thyroid glands were not collected from female no. 30731-02 in the 1000 mg/kg/day TS03018 group that was found dead.
- The method and route of euthanasia were not recorded.
- For all animals necropsied on July 28, 2003 and for one female each in the control and 250 mg/kg/day TS03017 groups euthanized on July 30, 2003, the ovaries were weighed without the oviducts. All remaining ovary weights include the oviducts.
- The blotted uterus weight for female no. 30728-14 (60 mg/kg/day TS03018 group) was greater than the wet weight. Therefore, the wet and blotted uterus weights for this animal were deleted.

These deviations did not negatively impact the quality or integrity of the data nor the outcome of the study.

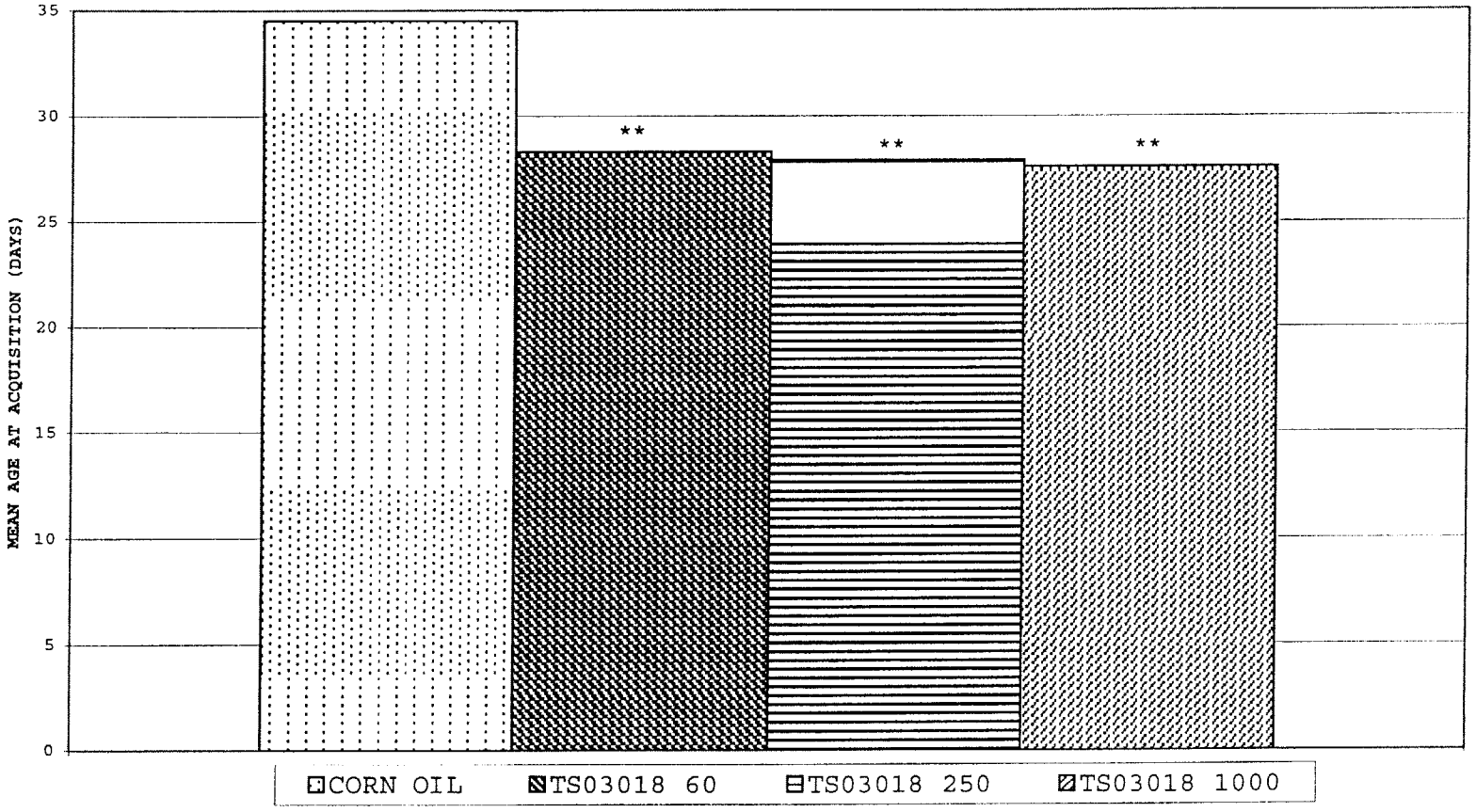
FIGURES 1-8

FIGURE 1 (TS03017)
PUBERTAL ASSAY OF SP7077 VARIANT TS03017 & TS03018 IN RATS
MEAN AGE (DAYS) AT ACQUISITION OF VAGINAL PATENCY



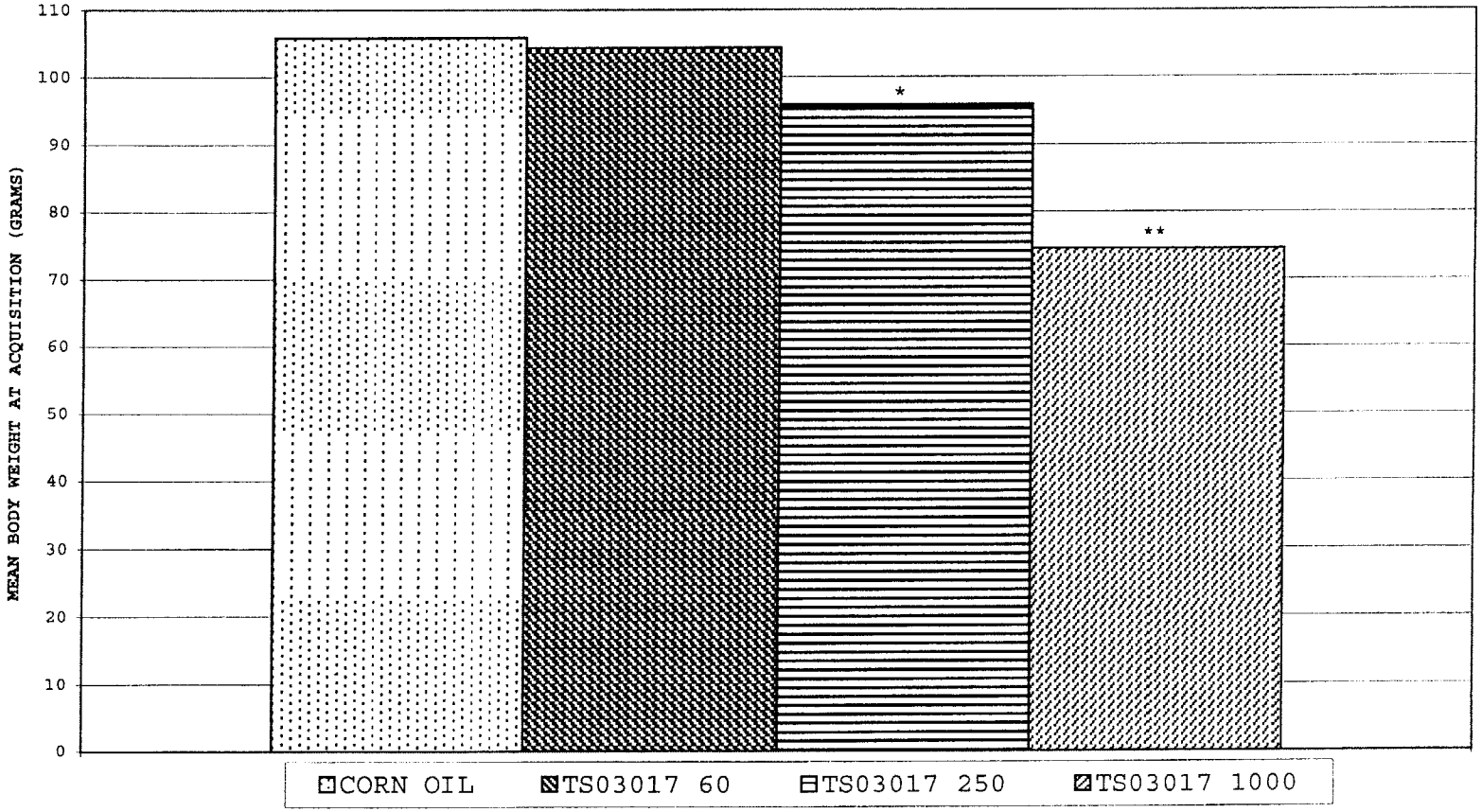
** = Significantly different from the control group at 0.01 using Dunnett's test

FIGURE 2 (TS03018)
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
MEAN AGE (DAYS) AT ACQUISITION OF VAGINAL PATENCY



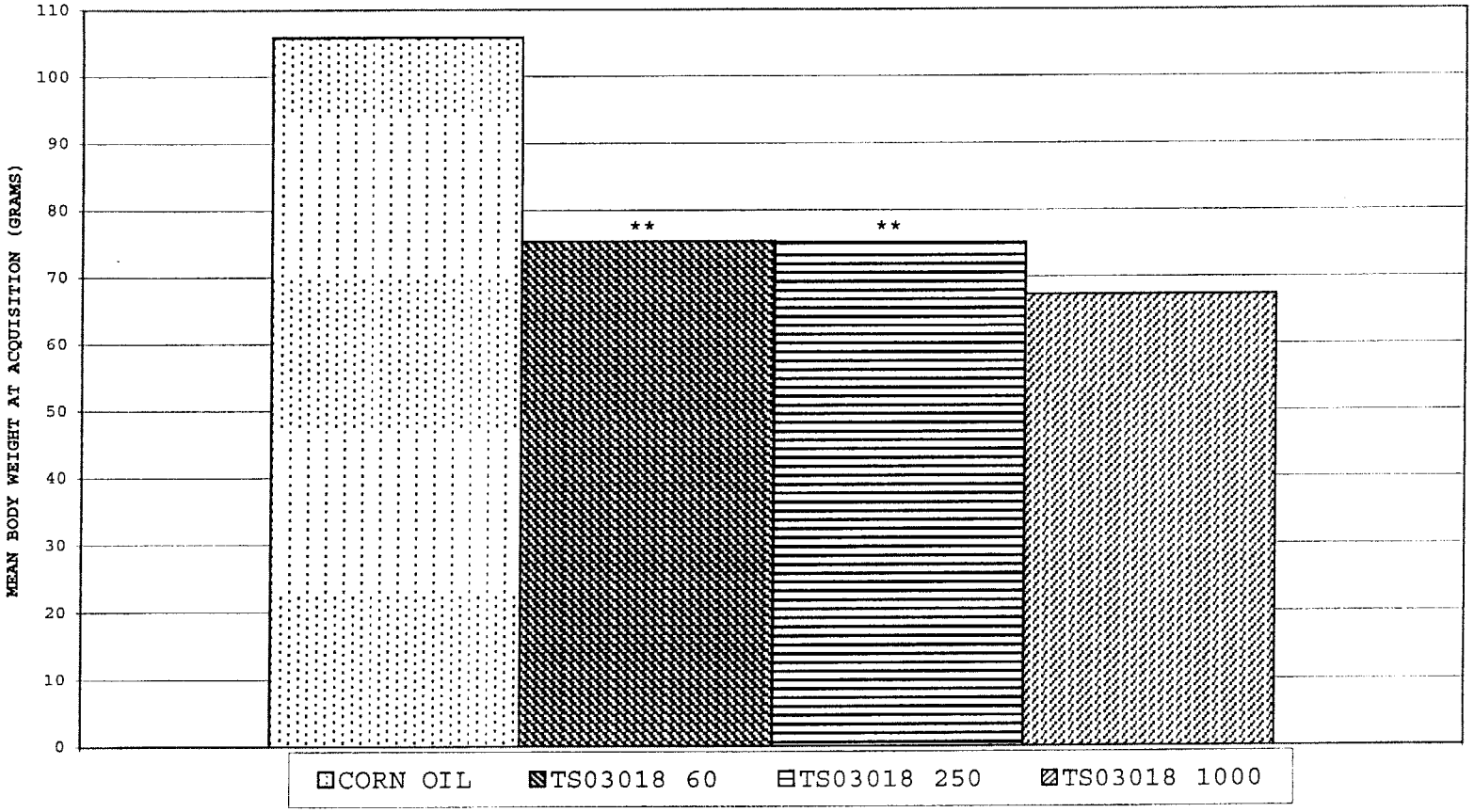
** = Significantly different from the control group at 0.01 using Dunnett's test

FIGURE 3 (TS03017)
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
MEAN BODY WEIGHT (GRAMS) AT ACQUISITION OF VAGINAL PATENCY



* = Significantly different from the control group at 0.05 using Dunnett's test
** = Significantly different from the control group at 0.01 using Dunnett's test

FIGURE 4 (TS03018)
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
MEAN BODY WEIGHT (GRAMS) AT ACQUISITION OF VAGINAL PATENCY



** = Significantly different from the control group at 0.01 using Dunnett's test

FIGURE 5 (TS03017)
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 IN RATS
NUMBER OF FEMALES WITH VAGINAL PATENCY

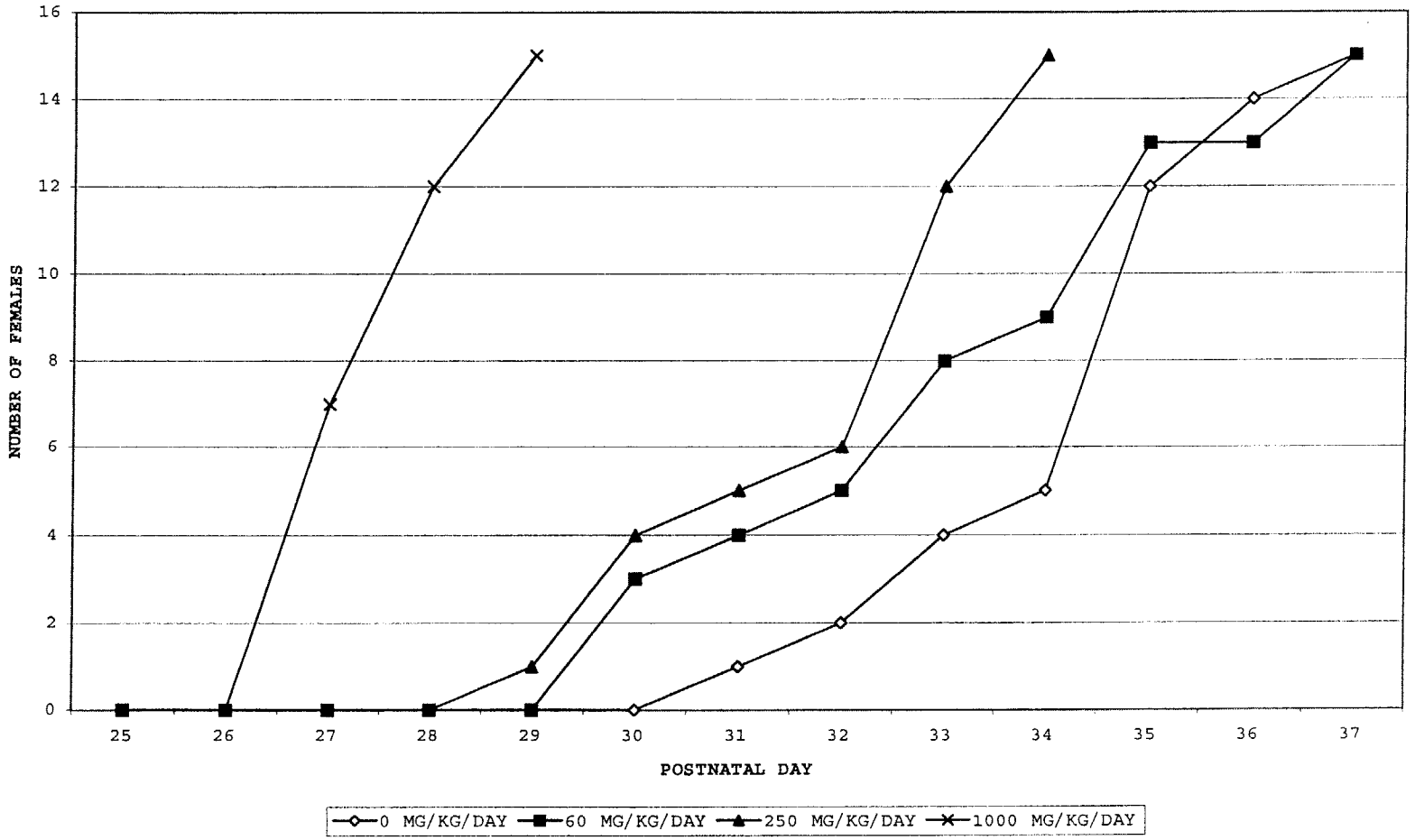


FIGURE 6 (TS03018)
PUBERTAL ASSAY OF SP 7077 VARIANT TS03018 IN RATS
NUMBER OF FEMALES WITH VAGINAL PATENCY

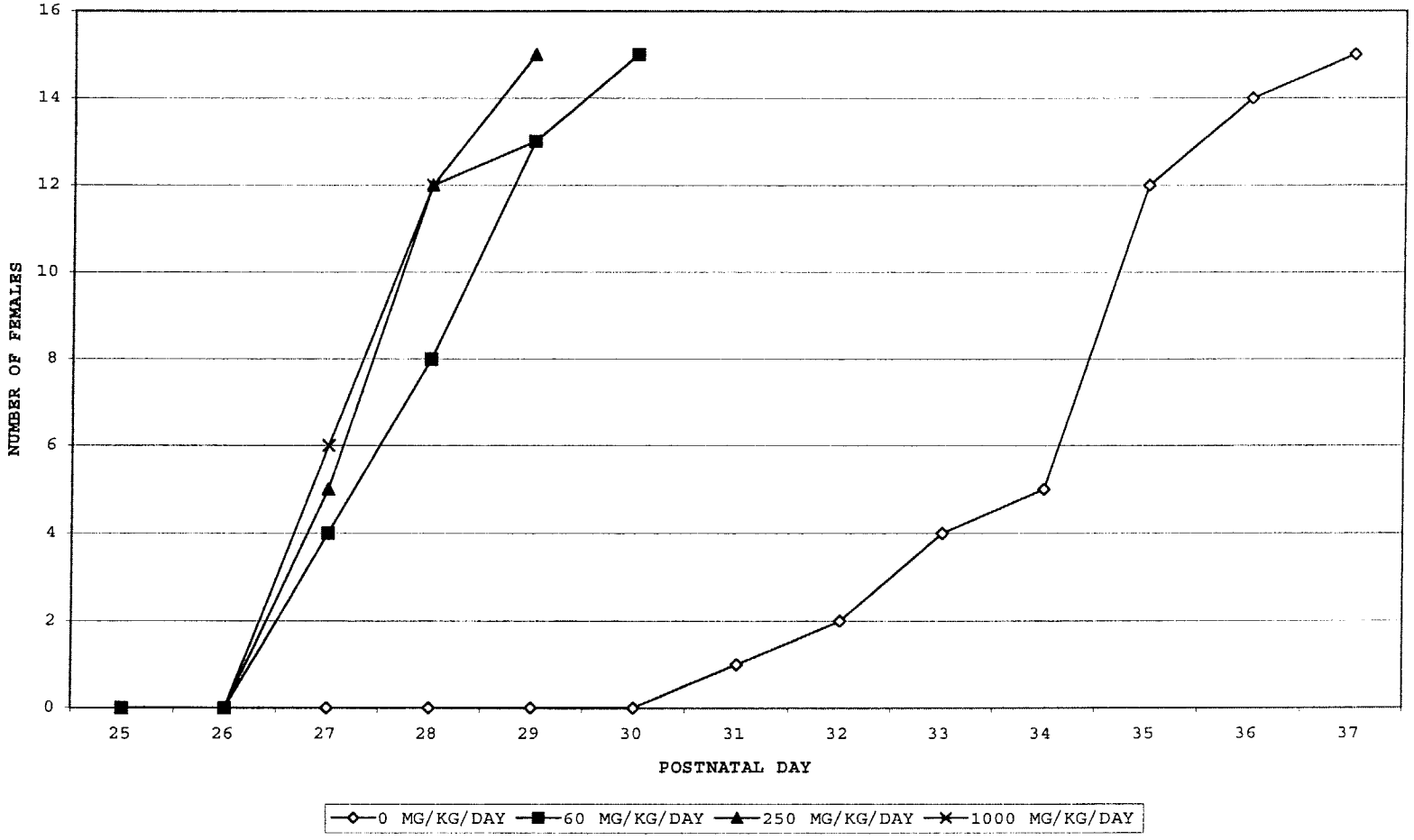
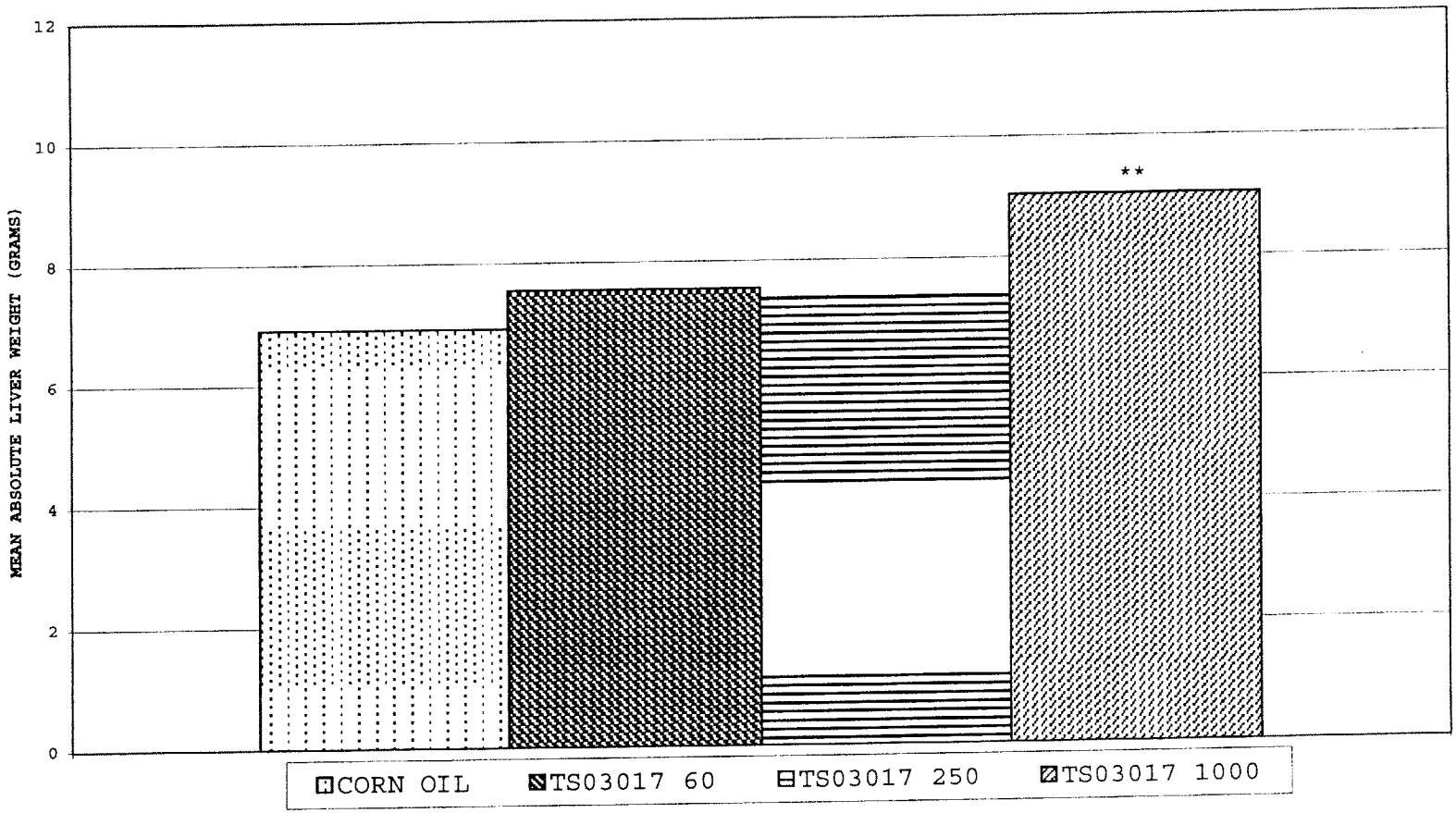
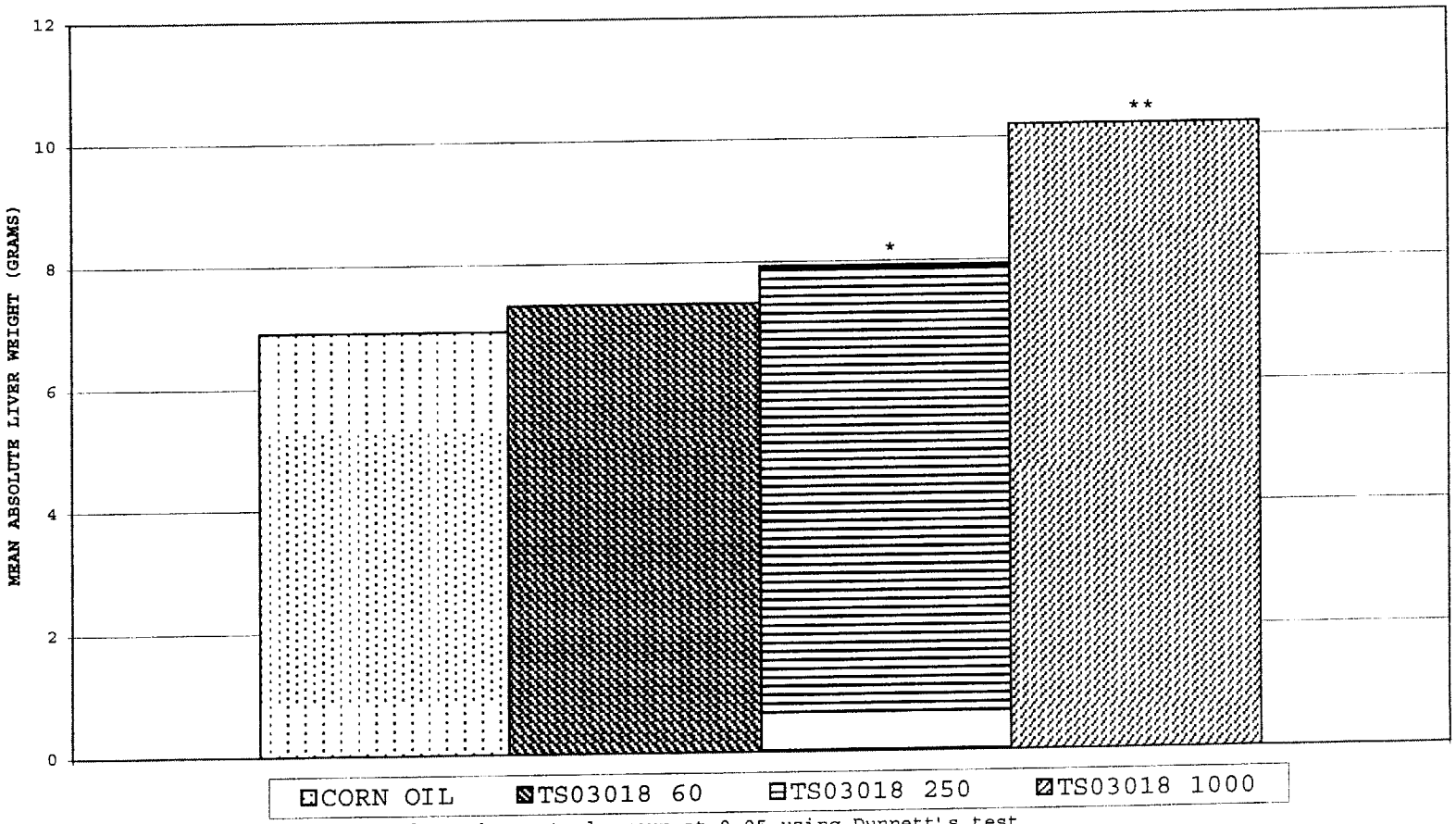


FIGURE 7 (TS03017)
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
MEAN ABSOLUTE LIVER WEIGHT (GRAMS)



** = Significantly different from the control group at 0.01 using Dunnett's test

FIGURE 8 (TS03018)
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
MEAN ABSOLUTE LIVER WEIGHT (GRAMS)



* = Significantly different from the control group at 0.05 using Dunnett's test
** = Significantly different from the control group at 0.01 using Dunnett's test

TABLES 1- 21

TABLE 1
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
SUMMARY OF SURVIVAL AND DISPOSITION

FEMALES

GROUP :	1				2				3				4			
PND	LIVE	FD	EE	SE	LIVE	FD	EE	SE	LIVE	FD	EE	SE	LIVE	FD	EE	SE
22	15	0	0	0	15	0	0	0	15	0	0	0	15	0	0	0
23	15	0	0	0	15	0	0	0	15	0	0	0	15	0	0	0
24	15	0	0	0	15	0	0	0	15	0	0	0	15	0	0	0
25	15	0	0	0	15	0	0	0	15	0	0	0	15	0	0	0
26	15	0	0	0	15	0	0	0	15	0	0	0	15	0	0	0
27	15	0	0	0	15	0	0	0	15	0	0	0	15	0	0	0
28	15	0	0	0	15	0	0	0	15	0	0	0	15	0	0	0
29	15	0	0	0	15	0	0	0	15	0	0	0	15	0	0	0
30	15	0	0	0	15	0	0	0	15	0	0	0	15	0	0	0
31	15	0	0	0	15	0	0	0	15	0	0	0	15	0	0	0
32	15	0	0	0	15	0	0	0	15	0	0	0	15	0	0	0
33	15	0	0	0	15	0	0	0	15	0	0	0	15	0	0	0
34	15	0	0	0	15	0	0	0	15	0	0	0	15	0	0	0
35	15	0	0	0	15	0	0	0	15	0	0	0	15	0	0	0
36	15	0	0	0	15	0	0	0	15	0	0	0	15	0	0	0
37	15	0	0	0	15	0	0	0	15	0	0	0	15	0	0	0
38	15	0	0	0	15	0	0	0	15	0	0	0	15	0	0	0
39	15	0	0	0	15	0	0	0	15	0	0	0	15	0	0	0
40	15	0	0	0	15	0	0	0	15	0	0	0	15	0	0	0
41	15	0	0	0	15	0	0	0	15	0	0	0	15	0	0	0
42	0	0	0	15	0	0	0	15	0	0	0	15	0	0	0	15

PND = POSTNATAL DAY FD = FOUND DEAD EE = EUTHANIZED IN EXTREMIS SE = SCHEDULED EUTHANASIA

1- CORN OIL 2- TS03017 60 3- TS03017 250 4- TS03017 1000

TABLE 1
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
SUMMARY OF SURVIVAL AND DISPOSITION

FEMALES

GROUP :	5				6				7			
PND	LIVE	FD	EE	SE	LIVE	FD	EE	SE	LIVE	FD	EE	SE
22	15	0	0	0	15	0	0	0	15	0	0	0
23	15	0	0	0	15	0	0	0	15	0	0	0
24	15	0	0	0	15	0	0	0	13	2	0	0
25	15	0	0	0	15	0	0	0	13	0	0	0
26	15	0	0	0	15	0	0	0	13	0	0	0
27	15	0	0	0	15	0	0	0	13	0	0	0
28	15	0	0	0	15	0	0	0	13	0	0	0
29	15	0	0	0	15	0	0	0	13	0	0	0
30	15	0	0	0	15	0	0	0	13	0	0	0
31	15	0	0	0	15	0	0	0	13	0	0	0
32	15	0	0	0	15	0	0	0	13	0	0	0
33	15	0	0	0	15	0	0	0	13	0	0	0
34	15	0	0	0	15	0	0	0	13	0	0	0
35	15	0	0	0	15	0	0	0	13	0	0	0
36	15	0	0	0	15	0	0	0	13	0	0	0
37	15	0	0	0	15	0	0	0	13	0	0	0
38	15	0	0	0	15	0	0	0	13	0	0	0
39	15	0	0	0	15	0	0	0	13	0	0	0
40	15	0	0	0	15	0	0	0	13	0	0	0
41	15	0	0	0	15	0	0	0	13	0	0	0
42	0	0	0	15	0	0	0	15	0	0	0	13

PND = POSTNATAL DAY FD = FOUND DEAD EE = EUTHANIZED IN EXTREMIS SE = SCHEDULED EUTHANASIA

5- TS03018 60 6- TS03018 250 7- TS03018 1000

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TABLE 2 (DAILY OBSERVATIONS)
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
SUMMARY OF CLINICAL FINDINGS: TOTAL OCCURRENCE/NO. OF ANIMALS

----- F E M A L E -----

TABLE RANGE:	07-08-03 TO 07-30-03						
GROUP:	1	2	3	4	5	6	7
NORMAL							
-NO SIGNIFICANT CLINICAL OBSERVATIONS	315/15	315/15	314/15	315/15	315/15	315/15	275/15
DISPOSITION							
-FOUND DEAD	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	2/ 2
-SCHEDULED EUTHANASIA	15/15	15/15	15/15	15/15	15/15	15/15	13/13
BODY/INTEGUMENT							
-DRIED YELLOW MATERIAL ANOGENITAL AREA	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	3/ 2
-SCABBING ON TAIL	0/ 0	0/ 0	1/ 1	0/ 0	0/ 0	0/ 0	0/ 0

1- CORN OIL 2- TS03017 60 3- TS03017 250 4- TS03017 1000 5- TS03018 60 6- TS03018 250
7- TS03018 1000

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TABLE 3 (AT TIME OF DOSING)
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
SUMMARY OF CLINICAL FINDINGS: TOTAL OCCURRENCE/NO. OF ANIMALS

----- F E M A L E -----

TABLE RANGE: 07-08-03 TO 07-29-03

GROUP:	1	2	3	4	5	6	7
ORAL/DENTAL -SALIVATION	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	0/ 0	2/ 2

1- CORN OIL 2- TS03017 60 3- TS03017 250 4- TS03017 1000 5- TS03018 60 6- TS03018 250
7- TS03018 1000

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TABLE 4 (1 HOUR POST-DOSING)
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
SUMMARY OF CLINICAL FINDINGS: TOTAL OCCURRENCE/NO. OF ANIMALS

----- F E M A L E -----

TABLE RANGE:	07-08-03 TO 07-29-03						
GROUP:	1	2	3	4	5	6	7
CARDIO-PULMONARY							
-RALES	0/ 0	0/ 0	1/ 1	0/ 0	0/ 0	0/ 0	0/ 0
ORAL/DENTAL							
-SALIVATION	0/ 0	0/ 0	2/ 2	70/15	1/ 1	3/ 2	90/13
-DRIED CLEAR MATERIAL AROUND MOUTH	0/ 0	0/ 0	1/ 1	1/ 1	0/ 0	0/ 0	2/ 2

1- CORN OIL 2- TS03017 60 3- TS03017 250 4- TS03017 1000 5- TS03018 60 6- TS03018 250
7- TS03018 1000

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TABLE 5
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
SUMMARY OF BODY WEIGHTS [G]

FEMALES

	GROUP:	CORN OIL	TS03017 60	TS03017 250	TS03017 1000	TS03018 60	TS03018 250	TS03018 1000
DAY 22	MEAN	46.7	46.4	46.2	47.4	46.6	46.5	46.3
	S. D.	5.67	5.36	4.14	5.43	4.21	5.58	5.22
	N	15	15	15	15	15	15	15
DAY 23	MEAN	50.7	50.7	50.3	51.7	50.6	50.6	47.9
	S. D.	5.93	4.92	4.46	5.92	4.06	6.31	6.26
	N	15	15	15	15	15	15	15
DAY 24	MEAN	55.5	55.0	55.0	55.7	55.2	55.6	50.3
	S. D.	6.33	5.38	4.63	5.90	4.24	6.33	7.12
	N	15	15	15	15	15	15	14
DAY 25	MEAN	60.1	60.3	59.9	60.7	60.0	60.8	55.0
	S. D.	6.84	5.60	4.22	6.74	4.35	6.65	5.20
	N	15	15	15	15	15	15	13
DAY 26	MEAN	64.9	65.3	64.0	65.4	64.6	66.1	60.3
	S. D.	6.87	5.82	4.80	6.92	4.69	7.00	5.37
	N	15	15	15	15	15	15	13
DAY 27	MEAN	69.7	69.7	68.8	70.5	69.5	71.0	64.5
	S. D.	7.63	6.34	4.64	7.12	5.03	7.83	5.65
	N	15	15	15	15	15	15	13

MODIFIED STATISTICS USED.
For statistical analyses, control group 1 was compared to groups 2, 3 and 4; control group 1 was compared to groups 5, 6 and 7.
None significantly different from control group

TABLE 5
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
SUMMARY OF BODY WEIGHTS [G]

FEMALES

	GROUP:	CORN OIL	TS03017 60	TS03017 250	TS03017 1000	TS03018 60	TS03018 250	TS03018 1000
DAY 28	MEAN	74.3	75.2	73.9	75.9	74.4	75.8	68.8
	S. D.	7.88	6.56	5.10	7.71	5.32	8.13	5.88
	N	15	15	15	15	15	15	13
DAY 29	MEAN	79.4	80.3	79.1	80.9	78.8	81.0	73.8
	S. D.	8.84	6.75	5.24	7.84	6.20	8.29	6.60
	N	15	15	15	15	15	15	13
DAY 30	MEAN	84.6	86.2	84.4	85.6	84.3	86.1	79.2
	S. D.	9.44	7.15	5.78	8.49	6.83	8.76	6.50
	N	15	15	15	15	15	15	13
DAY 31	MEAN	89.9	90.2	89.9	90.7	90.0	92.5	84.3
	S. D.	9.50	6.70	5.92	8.26	7.12	9.68	7.51
	N	15	15	15	15	15	15	13
DAY 32	MEAN	95.0	97.1	95.8	96.3	95.7	97.2	89.5
	S. D.	10.08	7.21	6.04	8.22	7.60	8.84	7.87
	N	15	15	15	15	15	15	13
DAY 33	MEAN	99.6	103.1	100.9	102.2	100.9	102.6	95.2
	S. D.	11.02	8.04	6.50	9.40	8.89	9.58	9.06
	N	15	15	15	15	15	15	13

MODIFIED STATISTICS USED.
For statistical analyses, control group 1 was compared to groups 2, 3 and 4; control group 1 was compared to groups 5, 6 and 7.
None significantly different from control group

TABLE 5
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
SUMMARY OF BODY WEIGHTS [G]

FEMALES

	GROUP:	CORN OIL	TS03017 60	TS03017 250	TS03017 1000	TS03018 60	TS03018 250	TS03018 1000
DAY 34	MEAN	104.5	108.4	106.7	107.9	105.8	107.9	100.1
	S. D.	11.25	8.00	6.83	9.37	8.99	9.84	8.81
	N	15	15	15	15	15	15	13
DAY 35	MEAN	109.2	112.9	112.0	113.4	111.1	113.5	105.0
	S. D.	11.75	8.15	7.09	9.74	9.72	9.90	8.66
	N	15	15	15	15	15	15	13
DAY 36	MEAN	113.4	117.8	116.3	118.5	116.6	119.3	111.2
	S. D.	11.85	7.82	7.71	11.05	9.72	10.30	10.05
	N	15	15	15	15	15	15	13
DAY 37	MEAN	118.8	123.8	120.9	123.7	121.8	123.6	115.7
	S. D.	12.32	8.77	6.90	9.99	9.85	10.22	10.79
	N	15	15	15	15	15	15	13
DAY 38	MEAN	122.8	129.2	125.3	127.8	126.1	127.6	121.7
	S. D.	13.47	8.60	8.68	11.48	10.42	10.76	9.96
	N	15	15	15	15	15	15	13
DAY 39	MEAN	127.1	134.8	130.4	129.8	130.7	132.3	125.5
	S. D.	14.96	9.62	9.34	10.70	9.22	12.07	11.10
	N	15	15	15	15	15	15	13

MODIFIED STATISTICS USED.
For statistical analyses, control group 1 was compared to groups 2, 3 and 4; control group 1 was compared to groups 5, 6 and 7.
None significantly different from control group

TABLE 5
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
SUMMARY OF BODY WEIGHTS [G]

FEMALES

GROUP:		CORN OIL	TS03017 60	TS03017 250	TS03017 1000	TS03018 60	TS03018 250	TS03018 1000
DAY 40	MEAN	131.7	137.5	134.8	133.8	135.0	137.3	131.3
	S.D.	13.16	9.07	9.83	12.15	9.51	11.12	10.67
	N	15	15	15	15	15	15	13
DAY 41	MEAN	134.3	143.2	137.5	138.0	139.4	140.1	134.1
	S.D.	15.87	9.30	9.48	12.77	9.92	11.65	10.59
	N	15	15	15	15	15	15	13
DAY 42	MEAN	138.9	147.4	141.1	143.0	142.8	143.6	137.9
	S.D.	15.20	9.01	10.11	12.64	10.09	12.14	10.63
	N	15	15	15	15	15	15	13

1- CORN OIL 2- TS03017 60 3- TS03017 250 4- TS03017 1000 5- TS03018 60 6- TS03018 250
7- TS03018 1000

MODIFIED STATISTICS USED.
For statistical analyses, control group 1 was compared to groups 2, 3 and 4; control group 1 was compared to groups 5, 6 and 7.
None significantly different from control group

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TABLE 6
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
SUMMARY OF BODY WEIGHT CHANGES [G]

FEMALES

	GROUP:	CORN OIL	TS03017 60	TS03017 250	TS03017 1000	TS03018 60	TS03018 250	TS03018 1000
DAY 22- 23	MEAN	4.0	4.3	4.1	4.3	4.0	4.1	1.6d
	S. D.	0.64	0.78	1.53	2.08	1.05	1.11	2.60
	N	15	15	15	15	15	15	15
DAY 23- 24	MEAN	4.7	4.3	4.6	4.0	4.6	4.9	1.8d
	S. D.	1.26	1.21	1.22	1.70	0.71	0.74	2.11
	N	15	15	15	15	15	15	14
DAY 24- 25	MEAN	4.7	5.3	4.9	4.9	4.8	5.2	3.2c
	S. D.	1.30	1.02	1.03	1.20	0.90	0.85	2.31
	N	15	15	15	15	15	15	13
DAY 25- 26	MEAN	4.8	5.0	4.1	4.7	4.6	5.3	5.4
	S. D.	1.12	1.32	0.94	0.90	1.00	0.93	1.70
	N	15	15	15	15	15	15	13
DAY 26- 27	MEAN	4.8	4.5	4.8	5.0	4.9	4.9	4.2
	S. D.	1.03	1.22	0.75	0.81	1.39	1.27	1.78
	N	15	15	15	15	15	15	13
DAY 27- 28	MEAN	4.5	5.5	5.0	5.5	4.8	4.8	4.3
	S. D.	1.20	1.19	1.16	1.35	1.44	1.06	1.68
	N	15	15	15	15	15	15	13

MODIFIED STATISTICS USED.
For statistical analyses, control group 1 was compared to groups 2, 3 and 4; control group 1 was compared to groups 5, 6 and 7.
c = Significantly different from control group 1 at 0.05 using Dunnett's test
d = Significantly different from control group 1 at 0.01 using Dunnett's test
MEAN DIFFERENCES CALCULATED FROM INDIVIDUAL DIFFERENCES

TABLE 6
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
SUMMARY OF BODY WEIGHT CHANGES [G]

FEMALES

	GROUP:	CORN OIL	TS03017 60	TS03017 250	TS03017 1000	TS03018 60	TS03018 250	TS03018 1000
DAY 28- 29	MEAN	5.2	5.1	5.3	5.0	4.5	5.2	5.0
	S. D.	1.39	1.20	1.00	1.50	1.45	1.94	1.60
	N	15	15	15	15	15	15	13
DAY 29- 30	MEAN	5.2	5.8	5.3	4.7	5.4	5.1	5.4
	S. D.	1.14	1.19	1.11	2.04	1.94	3.29	1.80
	N	15	15	15	15	15	15	13
DAY 30- 31	MEAN	5.3	4.1	5.5	5.0	5.7	6.4	5.1
	S. D.	0.82	5.56	2.10	1.23	1.52	3.02	2.03
	N	15	15	15	15	15	15	13
DAY 31- 32	MEAN	5.1	6.8	5.8	5.7	5.7	4.7	5.2
	S. D.	1.62	5.86	1.72	1.90	1.70	1.88	1.85
	N	15	15	15	15	15	15	13
DAY 32- 33	MEAN	4.6	6.0	5.1	5.9	5.2	5.4	5.7
	S. D.	1.76	2.04	1.76	2.08	1.84	1.61	2.12
	N	15	15	15	15	15	15	13
DAY 33- 34	MEAN	5.0	5.4	5.9	5.7	4.9	5.2	4.9
	S. D.	1.79	1.87	1.88	1.86	2.08	1.70	1.30
	N	15	15	15	15	15	15	13

MODIFIED STATISTICS USED.
For statistical analyses, control group 1 was compared to groups 2, 3 and 4; control group 1 was compared to groups 5, 6 and 7.
None significantly different from control group
MEAN DIFFERENCES CALCULATED FROM INDIVIDUAL DIFFERENCES

TABLE 6
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
SUMMARY OF BODY WEIGHT CHANGES [G]

FEMALES

GROUP:	CORN OIL	TS03017 60	TS03017 250	TS03017 1000	TS03018 60	TS03018 250	TS03018 1000
DAY 34- 35							
MEAN	4.7	4.4	5.3	5.5	5.4	5.7	4.9
S. D.	1.42	2.05	1.64	2.24	2.30	1.94	1.76
N	15	15	15	15	15	15	13
DAY 35- 36							
MEAN	4.2	4.9	4.3	5.1	5.4	5.7	6.2
S. D.	2.19	1.49	2.68	2.10	1.71	1.57	2.70
N	15	15	15	15	15	15	13
DAY 36- 37							
MEAN	5.4	6.0	4.6	5.2	5.2	4.3	4.5
S. D.	2.39	2.45	3.21	3.28	2.63	1.91	2.32
N	15	15	15	15	15	15	13
DAY 37- 38							
MEAN	4.0	5.4	4.4	4.1	4.3	4.0	5.9
S. D.	2.51	2.24	4.52	3.92	2.45	2.68	2.03
N	15	15	15	15	15	15	13
DAY 38- 39							
MEAN	4.3	5.6	5.1	2.0	4.6	4.8	3.8
S. D.	2.83	2.75	4.01	5.20	3.09	3.79	1.77
N	15	15	15	15	15	15	13
DAY 39- 40							
MEAN	4.6	2.7	4.4	4.0	4.3	5.0	5.8
S. D.	4.03	4.79	3.32	4.88	2.90	3.22	2.45
N	15	15	15	15	15	15	13

MODIFIED STATISTICS USED.
For statistical analyses, control group 1 was compared to groups 2, 3 and 4; control group 1 was compared to groups 5, 6 and 7.
None significantly different from control group
MEAN DIFFERENCES CALCULATED FROM INDIVIDUAL DIFFERENCES

TABLE 6
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
SUMMARY OF BODY WEIGHT CHANGES [G]

FEMALES

GROUP:	CORN OIL	TS03017 60	TS03017 250	TS03017 1000	TS03018 60	TS03018 250	TS03018 1000
DAY 40- 41							
MEAN	2.6	5.7	2.7	4.2	4.3	2.7	2.8
S. D.	4.87	2.95	3.43	2.79	3.78	3.24	2.06
N	15	15	15	15	15	15	13
DAY 41- 42							
MEAN	4.5	4.2	3.6	5.0	3.4	3.6	3.8
S. D.	2.85	2.50	2.20	2.23	2.90	3.10	2.18
N	15	15	15	15	15	15	13
DAY 22- 42							
MEAN	92.2	101.0	94.9	95.6	96.2	97.1	90.4
S. D.	11.72	7.97	10.24	11.28	8.90	9.21	9.83
N	15	15	15	15	15	15	13

1- CORN OIL 2- TS03017 60 3- TS03017 250 4- TS03017 1000 5- TS03018 60 6- TS03018 250
7- TS03018 1000

MODIFIED STATISTICS USED.
For statistical analyses, control group 1 was compared to groups 2, 3 and 4; control group 1 was compared to groups 5, 6 and 7.
None significantly different from control group
MEAN DIFFERENCES CALCULATED FROM INDIVIDUAL DIFFERENCES

PJTBWSUv5.03
08/08/2003
R: 08/11/2003

TABLE 7
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
SUMMARY OF ANIMAL DEVELOPMENTAL PARAMETERS - VAGINAL PATENCY

FEMALES

GROUP:	1	2	3	4	5	6	7
VAGINAL PATENCY (PND)							
MEAN	34.5	33.3	32.1b	27.7b	28.3d	27.9d	27.6d
S. D.	1.60	2.38	1.68	0.80	1.05	0.74	0.65
N	15	15	15	15	15	15	13
BODY WEIGHT							
MEAN	105.9	104.4	96.0a	74.6b	75.4d	75.2d	67.4d
S. D.	11.16	11.12	10.24	8.61	5.80	8.55	6.61
N	15	15	15	15	15	15	13

1- CORN OIL 2- TS03017 60 3- TS03017 250 4- TS03017 1000 5- TS03018 60 6- TS03018 250
7- TS03018 1000

MODIFIED STATISTICS USED.
For statistical analyses, control group 1 was compared to groups 2, 3 and 4; control group 1 was compared to groups 5, 6 and 7.
a = Significantly different from control group 1 at 0.05 using Dunnett's test
b = Significantly different from control group 1 at 0.01 using Dunnett's test
d = Significantly different from control group 1 at 0.01 using Dunnett's test

PJTBBv1.03
08/08/2003
R: 08/22/2003

TABLE 8
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
SUMMARY OF ESTROUS CYCLE DATA

---- FEMALES ----

GROUP:	1	2	3	4	5	6	7
ESTROUS CYCLE LENGTH (DAYS)							
MEAN	4.8	4.9	5.1	5.3	5.2	6.0	4.2
S.D.	0.70	0.32	0.64	1.36	0.66	1.62	1.04
N	7	10	11	14	12	11	12
MEAN AGE AT FIRST OCCURRENCE OF ESTRUS (DAYS)							
MEAN	37.4	36.0	35.5	32.6b	34.5c	34.5	30.8d
S.D.	2.17	1.93	2.61	4.24	3.11	3.64	3.42
N	14	15	15	15	15	11	13

1- CORN OIL 2- TS03017 60 3- TS03017 250 4- TS03017 1000 5- TS03018 60 6- TS03018 250
7- TS03018 1000

MODIFIED STATISTICS USED.
For statistical analyses, control group 1 was compared to groups 2, 3 and 4; control group 1 was compared to groups 5, 6 and 7.
b = Significantly different from control group 1 at 0.01 using Dunnett's test
c = Significantly different from control group 1 at 0.05 using Dunnett's test
d = Significantly different from control group 1 at 0.01 using Dunnett's test

PCYCv5.06
08/22/2003
R: 09/12/2003

TABLE 9 (UNSCHEDULED DEATHS)
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
SUMMARY OF MACROSCOPIC FINDINGS

FOUND DEAD OR EUTHANIZED MORIBUND OR IN EXTREMIS

	----- F E M A L E -----						
GROUP:	1	2	3	4	5	6	7
NUMBER OF ANIMALS IN DOSE GROUP	15	15	15	15	15	15	15
NUMBER OF ANIMALS EXAMINED	0	0	0	0	0	0	2
SKIN							
-MATTING, YELLOW	0	0	0	0	0	0	1
NO SIGNIFICANT CHANGES OBSERVED - ALL EXAMINED TISSUES	0	0	0	0	0	0	1

1- CORN OIL 2- TS03017 60 3- TS03017 250 4- TS03017 1000 5- TS03018 60 6- TS03018 250
7- TS03018 1000

PGRSI2v4.04
08/07/2003

TABLE 10
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
SUMMARY OF ORGAN AND LUMINAL FLUID WEIGHTS (G)

FEMALES

GROUP:	CORN OIL	TS03017 60	TS03017 250	TS03017 1000	TS03018 60	TS03018 250	TS03018 1000
UTERUS- WET (G)							
MEAN	0.3002	0.3427	0.3859	0.3112	0.3988c	0.2478	0.2081
S. D.	0.10288	0.18133	0.17791	0.06999	0.17693	0.05595	0.01969
N	15	15	15	15	14	15	13
UTERUS- BLOT. (G)							
MEAN	0.2621	0.2586	0.3060	0.2770	0.3129	0.2169	0.1944c
S. D.	0.07457	0.08217	0.07830	0.04979	0.08375	0.05292	0.02008
N	15	15	15	15	14	15	13
LUMINAL FLUID (G)							
MEAN	0.0380	0.0841	0.0799	0.0342	0.0859	0.0309	0.0138
S. D.	0.03592	0.15503	0.13089	0.03126	0.10878	0.02730	0.00415
N	15	15	15	15	14	15	13
ADRENAL GLANDS (G)							
MEAN	0.0321	0.0375	0.0397a	0.0434b	0.0377c	0.0422d	0.0423d
S. D.	0.00771	0.00658	0.00689	0.00735	0.00459	0.00648	0.00571
N	15	15	15	15	15	15	13
PITUITARY (G)							
MEAN	0.0079	0.0081	0.0081	0.0074	0.0079	0.0081	0.0070
S. D.	0.00112	0.00156	0.00144	0.00148	0.00137	0.00123	0.00140
N	15	15	15	15	15	15	13

MODIFIED STATISTICS USED.
For statistical analyses, control group 1 was compared to groups 2, 3 and 4; control group 1 was compared to groups 5, 6 and 7.
a = Significantly different from control group 1 at 0.05 using Dunnett's test
b = Significantly different from control group 1 at 0.01 using Dunnett's test
c = Significantly different from control group 1 at 0.05 using Dunnett's test
d = Significantly different from control group 1 at 0.01 using Dunnett's test

TABLE 10
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
SUMMARY OF ORGAN AND LUMINAL FLUID WEIGHTS [G]

FEMALES

GROUP:	CORN OIL	TS03017 60	TS03017 250	TS03017 1000	TS03018 60	TS03018 250	TS03018 1000
LIVER (G)							
MEAN	6.9113	7.5442	7.3794	9.0360b	7.3241	7.9288c	10.2106d
S.D.	1.04450	0.72846	0.95846	1.26956	0.81510	0.85958	1.24062
N	15	15	15	15	15	15	13
OVARIES/OVIDUCTS (G)							
MEAN	0.0845	0.0858	0.0802	0.0752	0.0706	0.0672c	0.0420d
S.D.	0.01583	0.01670	0.01307	0.01253	0.01185	0.01873	0.00583
N	9	10	9	10	10	10	8
OVARIES (G)-A							
MEAN	0.0485	0.0520	0.0560	0.0428	0.0407	0.0464	0.0288c
S.D.	0.01202	0.00436	0.01264	0.00828	0.00784	0.01177	0.00970
N	6	5	6	5	5	5	5

MODIFIED STATISTICS USED.
For statistical analyses, control group 1 was compared to groups 2, 3 and 4; control group 1 was compared to groups 5, 6 and 7.
b = Significantly different from control group 1 at 0.01 using Dunnett's test
c = Significantly different from control group 1 at 0.05 using Dunnett's test
d = Significantly different from control group 1 at 0.01 using Dunnett's test

A = INADVERTENTLY WEIGHED WITHOUT OVIDUCTS

POFBSTv5.04
09/10/2003
R: 12/02/2003

TABLE 11
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
SUMMARY OF ORGAN WTS. RELATIVE TO FINAL BODY WTS. [G/100 G]

FEMALES

GROUP:	CORN OIL	TS03017 60	TS03017 250	TS03017 1000	TS03018 60	TS03018 250	TS03018 1000
FINAL BODY WT (G)							
MEAN	139.	148.	141.	143.	143.	144.	138.
S. D.	15.3	9.1	10.0	12.7	10.1	12.1	10.5
N	15	15	15	15	15	15	13
UTERUS- WET							
MEAN	0.217	0.234	0.276	0.219	0.278	0.172	0.152
S. D.	0.0725	0.1329	0.1367	0.0519	0.1249	0.0364	0.0160
N	15	15	15	15	14	15	13
UTERUS- BLOT.							
MEAN	0.190	0.175	0.217	0.195	0.218	0.151	0.142c
S. D.	0.0551	0.0552	0.0536	0.0374	0.0556	0.0357	0.0154
N	15	15	15	15	14	15	13
ADRENAL GLANDS							
MEAN	0.023	0.025	0.028b	0.030b	0.026	0.029d	0.031d
S. D.	0.0051	0.0040	0.0037	0.0047	0.0030	0.0035	0.0043
N	15	15	15	15	15	15	13
PITUITARY							
MEAN	0.006	0.005	0.006	0.005	0.005	0.005	0.005
S. D.	0.0007	0.0010	0.0009	0.0010	0.0009	0.0005	0.0009
N	15	15	15	15	15	15	13

MODIFIED STATISTICS USED.
For statistical analyses, control group 1 was compared to groups 2, 3 and 4; control group 1 was compared to groups 5, 6 and 7.
b = Significantly different from control group 1 at 0.01 using Dunnett's test
c = Significantly different from control group 1 at 0.05 using Dunnett's test
d = Significantly different from control group 1 at 0.01 using Dunnett's test

TABLE 11
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
SUMMARY OF ORGAN WTS. RELATIVE TO FINAL BODY WTS. [G/100 G]

FEMALES

GROUP:		CORN OIL	TS03017 60	TS03017 250	TS03017 1000	TS03018 60	TS03018 250	TS03018 1000
LIVER								
	MEAN	4.964	5.115	5.218	6.304b	5.124	5.518d	7.394d
	S.D.	0.4459	0.3986	0.4419	0.5170	0.3891	0.4365	0.4577
	N	15	15	15	15	15	15	13
OVARIES/OVIDUCTS								
	MEAN	0.059	0.057	0.055	0.052	0.049	0.046c	0.030d
	S.D.	0.0132	0.0106	0.0081	0.0095	0.0091	0.0111	0.0047
	N	9	10	9	10	10	10	8
OVARIES-A								
	MEAN	0.037	0.037	0.042	0.032	0.030	0.034	0.021d
	S.D.	0.0073	0.0044	0.0094	0.0068	0.0047	0.0080	0.0061
	N	6	5	6	5	5	5	5

MODIFIED STATISTICS USED.
For statistical analyses, control group 1 was compared to groups 2, 3 and 4; control group 1 was compared to groups 5, 6 and 7.
b = Significantly different from control group 1 at 0.01 using Dunnett's test
c = Significantly different from control group 1 at 0.05 using Dunnett's test
d = Significantly different from control group 1 at 0.01 using Dunnett's test

A = INADVERTENTLY WEIGHED WITHOUT OVIDUCTS

POFBSTv5.04
09/10/2003
R: 09/11/2003

TABLE 12 (DAILY OBSERVATIONS)
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL CLINICAL OBSERVATIONS [POSITIVE FINDINGS ONLY]

TABLE RANGE: 07-08-03 TO 07-30-03

ANIMAL	SEX	GROUP	CATEGORY	DATE	TIME	GRADE	OBSERVATIONS
30721-05	F	CORN OIL	DISPOSITION	07-28-03	11:51	P	SCHEDULED EUTHANASIA
30722-01	F	CORN OIL	DISPOSITION	07-28-03	11:51	P	SCHEDULED EUTHANASIA
30723-03	F	CORN OIL	DISPOSITION	07-28-03	11:51	P	SCHEDULED EUTHANASIA
30723-11	F	CORN OIL	DISPOSITION	07-28-03	11:52	P	SCHEDULED EUTHANASIA
30723-12	F	CORN OIL	DISPOSITION	07-28-03	11:52	P	SCHEDULED EUTHANASIA
30725-02	F	CORN OIL	DISPOSITION	07-29-03	10:43	P	SCHEDULED EUTHANASIA
30725-13	F	CORN OIL	DISPOSITION	07-29-03	10:44	P	SCHEDULED EUTHANASIA
30726-05	F	CORN OIL	DISPOSITION	07-29-03	10:45	P	SCHEDULED EUTHANASIA
30727-09	F	CORN OIL	DISPOSITION	07-29-03	10:46	P	SCHEDULED EUTHANASIA
30728-06	F	CORN OIL	DISPOSITION	07-29-03	10:47	P	SCHEDULED EUTHANASIA
30731-04	F	CORN OIL	DISPOSITION	07-30-03	10:15	P	SCHEDULED EUTHANASIA
30731-10	F	CORN OIL	DISPOSITION	07-30-03	10:16	P	SCHEDULED EUTHANASIA
30733-02	F	CORN OIL	DISPOSITION	07-30-03	10:17	P	SCHEDULED EUTHANASIA
30733-12	F	CORN OIL	DISPOSITION	07-30-03	10:17	P	SCHEDULED EUTHANASIA
30733-13	F	CORN OIL	DISPOSITION	07-30-03	10:18	P	SCHEDULED EUTHANASIA
30721-02	F	TS03017 60	DISPOSITION	07-28-03	11:52	P	SCHEDULED EUTHANASIA
30721-11	F	TS03017 60	DISPOSITION	07-28-03	11:52	P	SCHEDULED EUTHANASIA
30722-04	F	TS03017 60	DISPOSITION	07-28-03	11:52	P	SCHEDULED EUTHANASIA
30723-05	F	TS03017 60	DISPOSITION	07-28-03	11:53	P	SCHEDULED EUTHANASIA
30724-09	F	TS03017 60	DISPOSITION	07-28-03	11:54	P	SCHEDULED EUTHANASIA
30725-04	F	TS03017 60	DISPOSITION	07-29-03	10:48	P	SCHEDULED EUTHANASIA
30726-01	F	TS03017 60	DISPOSITION	07-29-03	10:49	P	SCHEDULED EUTHANASIA
30726-07	F	TS03017 60	DISPOSITION	07-29-03	10:49	P	SCHEDULED EUTHANASIA
30726-08	F	TS03017 60	DISPOSITION	07-29-03	10:50	P	SCHEDULED EUTHANASIA
30728-05	F	TS03017 60	DISPOSITION	07-29-03	10:51	P	SCHEDULED EUTHANASIA
30729-08	F	TS03017 60	DISPOSITION	07-30-03	10:20	P	SCHEDULED EUTHANASIA
30730-04	F	TS03017 60	DISPOSITION	07-30-03	10:21	P	SCHEDULED EUTHANASIA
30730-12	F	TS03017 60	DISPOSITION	07-30-03	10:22	P	SCHEDULED EUTHANASIA
30731-12	F	TS03017 60	DISPOSITION	07-30-03	10:22	P	SCHEDULED EUTHANASIA

GRADE CODE: 1 - SLIGHT 2 - MODERATE 3 - SEVERE P - PRESENT

TABLE 12 (DAILY OBSERVATIONS)
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL CLINICAL OBSERVATIONS [POSITIVE FINDINGS ONLY]

TABLE RANGE: 07-08-03 TO 07-30-03

ANIMAL	SEX	GROUP	CATEGORY	DATE	TIME	GRADE	OBSERVATIONS
30733-01	F	TS03017 60	DISPOSITION	07-30-03	10:23	P	SCHEDULED EUTHANASIA
30721-04	F	TS03017 250	DISPOSITION	07-28-03	11:54	P	SCHEDULED EUTHANASIA
30721-08	F	TS03017 250	DISPOSITION	07-28-03	11:54	P	SCHEDULED EUTHANASIA
30723-07	F	TS03017 250	DISPOSITION	07-28-03	11:55	P	SCHEDULED EUTHANASIA
30723-08	F	TS03017 250	DISPOSITION	07-28-03	11:55	P	SCHEDULED EUTHANASIA
30723-09	F	TS03017 250	DISPOSITION	07-28-03	11:55	P	SCHEDULED EUTHANASIA
30725-10	F	TS03017 250	DISPOSITION	07-29-03	10:51	P	SCHEDULED EUTHANASIA
30725-12	F	TS03017 250	DISPOSITION	07-29-03	10:52	P	SCHEDULED EUTHANASIA
30726-13	F	TS03017 250	DISPOSITION	07-29-03	10:53	P	SCHEDULED EUTHANASIA
30728-11	F	TS03017 250	DISPOSITION	07-29-03	10:53	P	SCHEDULED EUTHANASIA
30728-13	F	TS03017 250	DISPOSITION	07-29-03	10:54	P	SCHEDULED EUTHANASIA
30730-10	F	TS03017 250	DISPOSITION	07-30-03	10:24	P	SCHEDULED EUTHANASIA
30731-01	F	TS03017 250	DISPOSITION	07-30-03	10:24	P	SCHEDULED EUTHANASIA
30731-01	F	TS03017 250	BODY/INTEGUMENT	07-24-03	8:44	P	SCABBING ON TAIL
30731-09	F	TS03017 250	DISPOSITION	07-30-03	10:25	P	SCHEDULED EUTHANASIA
30733-06	F	TS03017 250	DISPOSITION	07-30-03	10:27	P	SCHEDULED EUTHANASIA
30733-07	F	TS03017 250	DISPOSITION	07-30-03	10:27	P	SCHEDULED EUTHANASIA
30721-01	F	TS03017 1000	DISPOSITION	07-28-03	11:55	P	SCHEDULED EUTHANASIA
30721-14	F	TS03017 1000	DISPOSITION	07-28-03	11:56	P	SCHEDULED EUTHANASIA
30722-03	F	TS03017 1000	DISPOSITION	07-28-03	11:56	P	SCHEDULED EUTHANASIA
30723-06	F	TS03017 1000	DISPOSITION	07-28-03	11:56	P	SCHEDULED EUTHANASIA
30724-01	F	TS03017 1000	DISPOSITION	07-28-03	11:56	P	SCHEDULED EUTHANASIA
30725-03	F	TS03017 1000	DISPOSITION	07-29-03	10:55	P	SCHEDULED EUTHANASIA
30725-05	F	TS03017 1000	DISPOSITION	07-29-03	10:55	P	SCHEDULED EUTHANASIA
30725-08	F	TS03017 1000	DISPOSITION	07-29-03	10:56	P	SCHEDULED EUTHANASIA
30726-03	F	TS03017 1000	DISPOSITION	07-29-03	10:57	P	SCHEDULED EUTHANASIA
30728-01	F	TS03017 1000	DISPOSITION	07-29-03	10:58	P	SCHEDULED EUTHANASIA
30730-11	F	TS03017 1000	DISPOSITION	07-30-03	10:28	P	SCHEDULED EUTHANASIA
30731-05	F	TS03017 1000	DISPOSITION	07-30-03	10:29	P	SCHEDULED EUTHANASIA

GRADE CODE: 1 - SLIGHT 2 - MODERATE 3 - SEVERE P - PRESENT

TABLE 12 (DAILY OBSERVATIONS)
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL CLINICAL OBSERVATIONS [POSITIVE FINDINGS ONLY]

TABLE RANGE: 07-08-03 TO 07-30-03

ANIMAL	SEX	GROUP	CATEGORY	DATE	TIME	GRADE	OBSERVATIONS
30731-07	F	TS03017 1000	DISPOSITION	07-30-03	10:30	P	SCHEDULED EUTHANASIA
30733-04	F	TS03017 1000	DISPOSITION	07-30-03	10:31	P	SCHEDULED EUTHANASIA
30733-09	F	TS03017 1000	DISPOSITION	07-30-03	10:31	P	SCHEDULED EUTHANASIA
30721-09	F	TS03018 60	DISPOSITION	07-28-03	11:57	P	SCHEDULED EUTHANASIA
30721-13	F	TS03018 60	DISPOSITION	07-28-03	11:57	P	SCHEDULED EUTHANASIA
30722-06	F	TS03018 60	DISPOSITION	07-28-03	11:57	P	SCHEDULED EUTHANASIA
30723-01	F	TS03018 60	DISPOSITION	07-28-03	11:58	P	SCHEDULED EUTHANASIA
30724-10	F	TS03018 60	DISPOSITION	07-28-03	11:58	P	SCHEDULED EUTHANASIA
30725-01	F	TS03018 60	DISPOSITION	07-29-03	10:58	P	SCHEDULED EUTHANASIA
30725-06	F	TS03018 60	DISPOSITION	07-29-03	10:59	P	SCHEDULED EUTHANASIA
30726-12	F	TS03018 60	DISPOSITION	07-29-03	11:00	P	SCHEDULED EUTHANASIA
30728-07	F	TS03018 60	DISPOSITION	07-29-03	11:01	P	SCHEDULED EUTHANASIA
30728-14	F	TS03018 60	DISPOSITION	07-29-03	11:02	P	SCHEDULED EUTHANASIA
30729-09	F	TS03018 60	DISPOSITION	07-30-03	10:32	P	SCHEDULED EUTHANASIA
30730-08	F	TS03018 60	DISPOSITION	07-30-03	10:33	P	SCHEDULED EUTHANASIA
30731-03	F	TS03018 60	DISPOSITION	07-30-03	10:34	P	SCHEDULED EUTHANASIA
30731-06	F	TS03018 60	DISPOSITION	07-30-03	10:34	P	SCHEDULED EUTHANASIA
30733-08	F	TS03018 60	DISPOSITION	07-30-03	10:35	P	SCHEDULED EUTHANASIA
30721-03	F	TS03018 250	DISPOSITION	07-28-03	11:58	P	SCHEDULED EUTHANASIA
30721-12	F	TS03018 250	DISPOSITION	07-28-03	11:58	P	SCHEDULED EUTHANASIA
30723-04	F	TS03018 250	DISPOSITION	07-28-03	11:58	P	SCHEDULED EUTHANASIA
30723-14	F	TS03018 250	DISPOSITION	07-28-03	11:59	P	SCHEDULED EUTHANASIA
30724-14	F	TS03018 250	DISPOSITION	07-28-03	11:59	P	SCHEDULED EUTHANASIA
30725-07	F	TS03018 250	DISPOSITION	07-29-03	11:03	P	SCHEDULED EUTHANASIA
30725-09	F	TS03018 250	DISPOSITION	07-29-03	11:05	P	SCHEDULED EUTHANASIA
30726-02	F	TS03018 250	DISPOSITION	07-29-03	11:06	P	SCHEDULED EUTHANASIA
30726-06	F	TS03018 250	DISPOSITION	07-29-03	11:07	P	SCHEDULED EUTHANASIA
30728-12	F	TS03018 250	DISPOSITION	07-29-03	11:07	P	SCHEDULED EUTHANASIA
30729-03	F	TS03018 250	DISPOSITION	07-30-03	10:36	P	SCHEDULED EUTHANASIA

GRADE CODE: 1 - SLIGHT 2 - MODERATE 3 - SEVERE P - PRESENT

TABLE 12 (DAILY OBSERVATIONS)
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL CLINICAL OBSERVATIONS [POSITIVE FINDINGS ONLY]

TABLE RANGE: 07-08-03 TO 07-30-03

ANIMAL	SEX	GROUP	CATEGORY	DATE	TIME	GRADE	OBSERVATIONS
30729-05	F	TS03018 250	DISPOSITION	07-30-03	10:37	P	SCHEDULED EUTHANASIA
30731-08	F	TS03018 250	DISPOSITION	07-30-03	10:37	P	SCHEDULED EUTHANASIA
30731-11	F	TS03018 250	DISPOSITION	07-30-03	10:38	P	SCHEDULED EUTHANASIA
30733-03	F	TS03018 250	DISPOSITION	07-30-03	10:39	P	SCHEDULED EUTHANASIA
30721-07	F	TS03018 1000	DISPOSITION	07-28-03	11:59	P	SCHEDULED EUTHANASIA
30723-02	F	TS03018 1000	DISPOSITION	07-28-03	12:00	P	SCHEDULED EUTHANASIA
30724-03	F	TS03018 1000	DISPOSITION	07-28-03	12:00	P	SCHEDULED EUTHANASIA
30724-11	F	TS03018 1000	DISPOSITION	07-28-03	12:00	P	SCHEDULED EUTHANASIA
30724-12	F	TS03018 1000	DISPOSITION	07-28-03	12:01	P	SCHEDULED EUTHANASIA
30725-11	F	TS03018 1000	DISPOSITION	07-11-03	7:11	P	FOUND DEAD
30726-09	F	TS03018 1000	DISPOSITION	07-29-03	11:08	P	SCHEDULED EUTHANASIA
30726-10	F	TS03018 1000	DISPOSITION	07-29-03	11:09	P	SCHEDULED EUTHANASIA
30726-14	F	TS03018 1000	DISPOSITION	07-29-03	11:10	P	SCHEDULED EUTHANASIA
30728-04	F	TS03018 1000	DISPOSITION	07-29-03	11:11	P	SCHEDULED EUTHANASIA
30730-01	F	TS03018 1000	DISPOSITION	07-30-03	10:39	P	SCHEDULED EUTHANASIA
30730-07	F	TS03018 1000	DISPOSITION	07-30-03	10:40	P	SCHEDULED EUTHANASIA
30730-07	F	TS03018 1000	BODY/INTEGUMENT	07-13-03	9:31	1	DRIED YELLOW MATERIAL ANOGENITAL AREA
30731-02	F	TS03018 1000	DISPOSITION	07-12-03	15:03	P	FOUND DEAD
30733-05	F	TS03018 1000	DISPOSITION	07-30-03	10:41	P	SCHEDULED EUTHANASIA
30733-10	F	TS03018 1000	DISPOSITION	07-30-03	10:42	P	SCHEDULED EUTHANASIA
30733-10	F	TS03018 1000	BODY/INTEGUMENT	07-11-03	9:19	1	DRIED YELLOW MATERIAL ANOGENITAL AREA
				07-13-03	9:32	1	DRIED YELLOW MATERIAL ANOGENITAL AREA

GRADE CODE: 1 - SLIGHT 2 - MODERATE 3 - SEVERE P - PRESENT

TABLE 13 (AT TIME OF DOSING)
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL CLINICAL OBSERVATIONS

TABLE RANGE: 07-08-03 TO 07-29-03

ANIMAL	SEX	GROUP	CATEGORY	DATE	TIME	GRADE	OBSERVATIONS
30730-01	F	TS03018 1000	ORAL/DENTAL	07-26-03	14:49	1	SALIVATION
30730-07	F	TS03018 1000	ORAL/DENTAL	07-26-03	14:51	1	SALIVATION

GRADE CODE: 1 - SLIGHT 2 - MODERATE 3 - SEVERE P - PRESENT

TABLE 14 (1 HOUR POST-DOSING)
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL CLINICAL OBSERVATIONS

TABLE RANGE: 07-08-03 TO 07-29-03

ANIMAL	SEX	GROUP	CATEGORY	DATE	TIME	GRADE	OBSERVATIONS
30725-12	F	TS03017 250	ORAL/DENTAL	07-25-03	14:39	1	SALIVATION
30728-13	F	TS03017 250	ORAL/DENTAL	07-26-03	15:38	2	DRIED CLEAR MATERIAL AROUND MOUTH
30731-09	F	TS03017 250	CARDIO-PULMONARY	07-25-03	14:40	P	RALES
30731-09	F	TS03017 250	ORAL/DENTAL	07-25-03	14:39	1	SALIVATION
30721-01	F	TS03017 1000	ORAL/DENTAL	07-17-03	14:38	1	SALIVATION
				07-22-03	14:23	1	SALIVATION
				07-24-03	14:25	1	SALIVATION
				07-25-03	14:40	2	SALIVATION
				07-26-03	15:40	2	SALIVATION
				07-27-03	14:45	1	SALIVATION
30721-14	F	TS03017 1000	ORAL/DENTAL	07-25-03	14:41	2	SALIVATION
30722-03	F	TS03017 1000	ORAL/DENTAL	07-17-03	14:39	1	SALIVATION
				07-19-03	15:03	2	SALIVATION
				07-20-03	14:58	2	SALIVATION
				07-25-03	14:41	2	SALIVATION
				07-26-03	15:40	1	SALIVATION
30723-06	F	TS03017 1000	ORAL/DENTAL	07-25-03	14:41	2	SALIVATION
30724-01	F	TS03017 1000	ORAL/DENTAL	07-20-03	14:59	2	DRIED CLEAR MATERIAL AROUND MOUTH
				07-25-03	14:41	1	SALIVATION
30725-03	F	TS03017 1000	ORAL/DENTAL	07-19-03	15:03	3	SALIVATION
				07-20-03	14:59	2	SALIVATION
				07-21-03	14:47	1	SALIVATION
				07-22-03	14:23	1	SALIVATION
				07-23-03	14:29	1	SALIVATION
				07-24-03	14:26	2	SALIVATION
				07-26-03	15:41	1	SALIVATION
				07-27-03	14:45	1	SALIVATION
				07-28-03	14:29	1	SALIVATION
30725-05	F	TS03017 1000	ORAL/DENTAL	07-18-03	14:18	2	SALIVATION

GRADE CODE: 1 - SLIGHT 2 - MODERATE 3 - SEVERE P - PRESENT

TABLE 14 (1 HOUR POST-DOSING)
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL CLINICAL OBSERVATIONS

TABLE RANGE: 07-08-03 TO 07-29-03

ANIMAL	SEX	GROUP	CATEGORY	DATE	TIME	GRADE	OBSERVATIONS
30725-05	F	TS03017 1000	ORAL/DENTAL	07-19-03	15:04	2	SALIVATION
				07-20-03	15:00	3	SALIVATION
				07-21-03	14:47	2	SALIVATION
				07-22-03	14:24	1	SALIVATION
				07-23-03	14:29	1	SALIVATION
				07-24-03	14:27	1	SALIVATION
				07-25-03	14:42	2	SALIVATION
				07-26-03	15:41	1	SALIVATION
				07-27-03	14:46	1	SALIVATION
				07-28-03	14:29	1	SALIVATION
30725-08	F	TS03017 1000	ORAL/DENTAL	07-22-03	14:24	1	SALIVATION
				07-23-03	14:29	1	SALIVATION
				07-24-03	14:27	2	SALIVATION
				07-25-03	14:42	2	SALIVATION
				07-27-03	14:48	1	SALIVATION
				07-28-03	14:30	1	SALIVATION
30726-03	F	TS03017 1000	ORAL/DENTAL	07-18-03	14:19	1	SALIVATION
				07-19-03	15:05	2	SALIVATION
				07-20-03	15:00	2	SALIVATION
				07-22-03	14:24	1	SALIVATION
				07-23-03	14:30	1	SALIVATION
				07-24-03	14:28	1	SALIVATION
				07-25-03	14:42	2	SALIVATION
				07-27-03	14:48	2	SALIVATION
				07-28-03	14:30	1	SALIVATION
30728-01	F	TS03017 1000	ORAL/DENTAL	07-19-03	15:05	1	SALIVATION
				07-21-03	14:48	1	SALIVATION
				07-25-03	14:43	1	SALIVATION
				07-26-03	15:42	1	SALIVATION

GRADE CODE: 1 - SLIGHT 2 - MODERATE 3 - SEVERE P - PRESENT

TABLE 14 (1 HOUR POST-DOSING)
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL CLINICAL OBSERVATIONS

TABLE RANGE: 07-08-03 TO 07-29-03

ANIMAL	SEX	GROUP	CATEGORY	DATE	TIME	GRADE	OBSERVATIONS
30730-11	F	TS03017 1000	ORAL/DENTAL	07-20-03	15:01	2	SALIVATION
				07-25-03	14:43	2	SALIVATION
				07-27-03	14:48	1	SALIVATION
30731-05	F	TS03017 1000	ORAL/DENTAL	07-20-03	15:01	1	SALIVATION
				07-25-03	14:43	2	SALIVATION
				07-26-03	15:42	1	SALIVATION
				07-27-03	14:49	1	SALIVATION
30731-07	F	TS03017 1000	ORAL/DENTAL	07-19-03	15:06	1	SALIVATION
				07-20-03	15:03	2	SALIVATION
				07-23-03	14:30	1	SALIVATION
				07-25-03	14:44	2	SALIVATION
30733-04	F	TS03017 1000	ORAL/DENTAL	07-20-03	15:02	1	SALIVATION
				07-25-03	14:44	2	SALIVATION
				07-26-03	15:43	2	SALIVATION
30733-09	F	TS03017 1000	ORAL/DENTAL	07-20-03	15:02	1	SALIVATION
				07-25-03	14:44	1	SALIVATION
				07-29-03	14:26	1	SALIVATION
30729-09	F	TS03018 60	ORAL/DENTAL	07-21-03	14:31	1	SALIVATION
30724-14	F	TS03018 250	ORAL/DENTAL	07-22-03	14:27	1	SALIVATION
				07-27-03	14:51	1	SALIVATION
30729-03	F	TS03018 250	ORAL/DENTAL	07-29-03	14:28	1	SALIVATION
30721-07	F	TS03018 1000	ORAL/DENTAL	07-17-03	14:40	2	SALIVATION
				07-18-03	14:20	1	SALIVATION
				07-19-03	14:58	2	SALIVATION
				07-23-03	14:21	1	SALIVATION
30723-02	F	TS03018 1000	ORAL/DENTAL	07-17-03	14:40	1	SALIVATION
				07-20-03	14:54	2	SALIVATION
				07-26-03	15:44	1	SALIVATION
				07-27-03	15:03	1	SALIVATION

GRADE CODE: 1 - SLIGHT 2 - MODERATE 3 - SEVERE P - PRESENT

TABLE 14 (1 HOUR POST-DOSING)
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL CLINICAL OBSERVATIONS

TABLE RANGE: 07-08-03 TO 07-29-03

ANIMAL	SEX	GROUP	CATEGORY	DATE	TIME	GRADE	OBSERVATIONS
30724-03	F	TS03018 1000	ORAL/DENTAL	07-18-03	14:20	1	SALIVATION
				07-23-03	14:21	1	SALIVATION
				07-25-03	14:46	1	SALIVATION
				07-26-03	15:44	1	SALIVATION
				07-27-03	15:03	1	SALIVATION
30724-11	F	TS03018 1000	ORAL/DENTAL	07-17-03	14:41	2	SALIVATION
				07-18-03	14:21	1	SALIVATION
				07-19-03	14:59	2	SALIVATION
				07-20-03	14:55	1	SALIVATION
				07-21-03	14:30	1	SALIVATION
				07-23-03	14:22	2	SALIVATION
				07-25-03	14:50	1	SALIVATION
				07-27-03	15:04	1	SALIVATION
30724-12	F	TS03018 1000	ORAL/DENTAL	07-18-03	14:21	1	SALIVATION
				07-19-03	14:59	2	SALIVATION
				07-20-03	14:55	2	SALIVATION
				07-22-03	14:25	1	SALIVATION
				07-23-03	14:22	1	SALIVATION
				07-24-03	14:29	1	SALIVATION
				07-25-03	14:50	1	SALIVATION
				07-26-03	15:45	1	SALIVATION
				07-27-03	15:04	1	SALIVATION
30726-09	F	TS03018 1000	ORAL/DENTAL	07-19-03	14:59	1	SALIVATION
				07-25-03	14:51	1	SALIVATION
				07-26-03	15:45	1	SALIVATION
				07-27-03	15:04	1	SALIVATION
				07-28-03	15:00	1	SALIVATION
30726-10	F	TS03018 1000	ORAL/DENTAL	07-17-03	14:41	1	SALIVATION
				07-19-03	15:00	1	SALIVATION

GRADE CODE: 1 - SLIGHT 2 - MODERATE 3 - SEVERE P - PRESENT

TABLE 14 (1 HOUR POST-DOSING)
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL CLINICAL OBSERVATIONS

TABLE RANGE: 07-08-03 TO 07-29-03

ANIMAL	SEX	GROUP	CATEGORY	DATE	TIME	GRADE	OBSERVATIONS
30726-10	F	TS03018 1000	ORAL/DENTAL	07-20-03	14:56	2	SALIVATION
				07-21-03	14:31	2	SALIVATION
				07-25-03	14:51	1	SALIVATION
				07-27-03	15:04	1	SALIVATION
				07-28-03	15:01	1	SALIVATION
30726-14	F	TS03018 1000	ORAL/DENTAL	07-19-03	15:00	1	DRIED CLEAR MATERIAL AROUND MOUTH
				07-21-03	14:31	2	SALIVATION
				07-23-03	14:23	2	SALIVATION
				07-25-03	14:51	1	SALIVATION
				07-26-03	15:46	1	SALIVATION
				07-27-03	15:05	1	SALIVATION
				07-28-03	15:01	1	SALIVATION
30728-04	F	TS03018 1000	ORAL/DENTAL	07-19-03	15:01	1	DRIED CLEAR MATERIAL AROUND MOUTH
				07-20-03	14:57	2	SALIVATION
				07-25-03	14:51	1	SALIVATION
				07-26-03	15:46	1	SALIVATION
				07-27-03	15:05	1	SALIVATION
				07-28-03	15:01	1	SALIVATION
30730-01	F	TS03018 1000	ORAL/DENTAL	07-19-03	15:01	2	SALIVATION
				07-20-03	14:56	1	SALIVATION
				07-21-03	14:33	1	SALIVATION
				07-25-03	14:52	1	SALIVATION
				07-26-03	15:46	1	SALIVATION
				07-27-03	15:05	1	SALIVATION
				07-28-03	15:02	2	SALIVATION
				07-29-03	14:26	1	SALIVATION
30730-07	F	TS03018 1000	ORAL/DENTAL	07-18-03	14:23	1	SALIVATION
				07-19-03	15:02	3	SALIVATION
				07-20-03	14:57	3	SALIVATION

GRADE CODE: 1 - SLIGHT 2 - MODERATE 3 - SEVERE P - PRESENT

TABLE 14 (1 HOUR POST-DOSING)
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL CLINICAL OBSERVATIONS

TABLE RANGE: 07-08-03 TO 07-29-03

ANIMAL	SEX	GROUP	CATEGORY	DATE	TIME	GRADE	OBSERVATIONS
30730-07	F	TS03018 1000	ORAL/DENTAL	07-21-03	14:32	2	SALIVATION
				07-22-03	14:26	2	SALIVATION
				07-24-03	14:30	1	SALIVATION
				07-25-03	14:52	1	SALIVATION
				07-26-03	15:47	1	SALIVATION
				07-27-03	15:06	1	SALIVATION
				07-28-03	15:02	1	SALIVATION
				07-29-03	14:27	1	SALIVATION
30733-05	F	TS03018 1000	ORAL/DENTAL	07-18-03	14:22	2	SALIVATION
				07-22-03	14:26	1	SALIVATION
				07-23-03	14:23	2	SALIVATION
				07-24-03	14:30	2	SALIVATION
				07-27-03	15:06	2	SALIVATION
				07-28-03	15:02	1	SALIVATION
				07-29-03	14:27	2	SALIVATION
30733-10	F	TS03018 1000	ORAL/DENTAL	07-18-03	14:22	2	SALIVATION
				07-19-03	15:02	3	SALIVATION
				07-20-03	14:58	3	SALIVATION
				07-22-03	14:27	1	SALIVATION
				07-23-03	14:23	1	SALIVATION
				07-24-03	14:31	1	SALIVATION
				07-25-03	14:52	2	SALIVATION
				07-26-03	15:47	2	SALIVATION
				07-27-03	15:06	1	SALIVATION
				07-28-03	15:03	1	SALIVATION
				07-29-03	14:27	1	SALIVATION

GRADE CODE: 1 - SLIGHT 2 - MODERATE 3 - SEVERE P - PRESENT

TABLE 15
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL BODY WEIGHTS [G]

FEMALES

DAY	22	23	24	25	26	27	28	29	30	31
ANIMALS FROM GROUP 1:	CORN OIL									
30721-05	48.1	51.7	56.2	62.1	65.1	71.6	76.0	79.4	85.4	90.9
30722-01	44.7	49.6	51.6	56.0	60.0	64.5	68.8	72.2	77.6	81.0
30723-03	44.0	47.7	51.6	56.5	61.8	65.7	70.6	75.4	81.5	85.8
30723-11	47.5	51.8	56.5	60.6	65.8	69.9	75.0	79.7	84.2	89.7
30723-12	42.7	46.4	49.9	54.6	59.5	63.5	67.5	72.3	76.1	82.5
30725-02	51.2	55.4	61.4	66.3	73.2	78.2	84.7	92.2	97.4	103.0
30725-13	46.0	50.6	55.0	61.1	64.8	69.4	72.6	78.6	85.0	89.8
30726-05	53.5	57.7	63.8	71.5	76.6	82.8	87.2	95.5	101.2	106.4
30727-09	46.9	49.8	55.6	59.5	63.2	67.3	70.8	75.6	78.1	84.8
30728-06	54.9	58.8	63.0	66.8	71.4	76.6	81.0	87.1	93.3	99.1
30731-04	34.8	37.8	42.7	46.0	51.8	55.1	58.5	62.7	66.5	71.6
30731-10	37.1	40.7	46.0	50.3	54.8	59.4	64.2	69.1	74.2	79.3
30733-02	50.4	54.8	58.4	64.0	67.5	72.7	78.4	82.7	87.9	93.7
30733-12	52.9	57.0	64.1	68.1	73.0	79.9	82.5	88.4	95.1	99.6
30733-13	46.1	51.3	56.3	58.6	65.3	69.5	76.5	80.7	85.8	91.3
MEAN	46.7	50.7	55.5	60.1	64.9	69.7	74.3	79.4	84.6	89.9
S.D.	5.67	5.93	6.33	6.84	6.87	7.63	7.88	8.84	9.44	9.50
N	15	15	15	15	15	15	15	15	15	15

TABLE 15
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL BODY WEIGHTS [G]

FEMALES

DAY	32	33	34	35	36	37	38	39	40	41
ANIMALS FROM GROUP 1: CORN OIL										
30721-05	96.2	101.1	107.5	110.5	112.1	119.2	123.5	130.0	138.3	133.3
30722-01	87.1	89.7	92.8	97.5	100.0	103.5	105.5	107.8	112.3	113.0
30723-03	92.1	97.1	100.6	105.8	108.7	114.9	118.1	117.8	130.5	134.6
30723-11	95.6	100.4	108.7	113.4	115.3	123.6	128.3	130.5	138.5	139.1
30723-12	84.9	85.7	92.4	96.5	99.0	106.0	105.7	109.6	118.5	113.3
30725-02	110.7	115.5	118.3	125.2	126.2	134.1	138.9	147.2	148.1	149.9
30725-13	95.1	99.5	102.9	104.7	113.2	115.8	121.4	123.2	126.8	129.0
30726-05	112.4	116.8	122.4	127.4	132.4	137.0	141.5	152.5	149.5	159.5
30727-09	86.3	90.7	94.3	96.5	100.4	103.5	107.0	110.3	115.6	112.9
30728-06	103.9	108.2	114.6	120.3	124.8	130.2	132.7	139.3	144.3	150.9
30731-04	76.3	79.0	84.8	90.2	94.5	101.1	102.1	107.2	109.2	113.9
30731-10	85.7	90.4	94.3	99.8	107.1	112.9	116.2	119.6	125.8	130.7
30733-02	97.0	105.1	108.1	112.4	117.9	120.9	127.7	131.2	135.7	138.0
30733-12	105.2	111.9	119.2	124.6	129.8	138.7	142.2	145.2	143.9	156.2
30733-13	95.9	102.5	107.0	113.2	119.8	120.5	130.9	134.5	138.6	140.9
MEAN	95.0	99.6	104.5	109.2	113.4	118.8	122.8	127.1	131.7	134.3
S. D.	10.08	11.02	11.25	11.75	11.85	12.32	13.47	14.96	13.16	15.87
N	15	15	15	15	15	15	15	15	15	15

TABLE 15
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL BODY WEIGHTS [G]

FEMALES

DAY 42

ANIMALS FROM GROUP 1:	CORN OIL	
30721-05	140.8	SCHED EUTH DAY 42
30722-01	119.1	SCHED EUTH DAY 42
30723-03	137.1	SCHED EUTH DAY 42
30723-11	145.0	SCHED EUTH DAY 42
30723-12	120.3	SCHED EUTH DAY 42
30725-02	156.9	SCHED EUTH DAY 42
30725-13	133.8	SCHED EUTH DAY 42
30726-05	156.6	SCHED EUTH DAY 42
30727-09	115.6	SCHED EUTH DAY 42
30728-06	153.6	SCHED EUTH DAY 42
30731-04	119.9	SCHED EUTH DAY 42
30731-10	132.4	SCHED EUTH DAY 42
30733-02	141.8	SCHED EUTH DAY 42
30733-12	161.8	SCHED EUTH DAY 42
30733-13	148.7	SCHED EUTH DAY 42
MEAN	138.9	
S.D.	15.20	
N	15	

TABLE 15
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL BODY WEIGHTS [G]

FEMALES

DAY	22	23	24	25	26	27	28	29	30	31
ANIMALS FROM GROUP 2: TS03017 60										
30721-02	46.4	51.2	53.9	58.7	65.5	69.3	74.7	80.0	85.6	90.3
30721-11	41.7	46.7	49.8	53.9	59.7	62.4	68.6	74.0	80.8	84.7
30722-04	45.1	49.1	52.4	56.3	63.2	65.6	72.1	75.0	81.3	85.3
30723-05	42.4	47.2	50.1	55.1	58.7	62.6	67.5	71.6	76.8	83.0
30724-09	44.8	49.8	53.3	57.8	62.9	67.7	72.3	77.0	82.1	85.4
30725-04	39.4	44.8	50.8	56.4	61.9	65.7	73.2	78.6	86.1	88.7
30726-01	48.0	51.5	57.9	64.1	68.1	75.2	81.2	88.3	92.8	99.8
30726-07	55.8	59.3	63.9	71.1	77.5	82.6	88.4	93.0	99.8	106.0
30726-08	44.9	47.7	53.4	57.9	63.1	68.4	72.8	78.4	84.0	91.4
30728-05	54.1	57.3	62.7	67.1	71.4	76.4	81.9	88.5	93.6	99.5
30729-08	49.4	54.0	59.0	63.8	67.8	72.7	75.3	81.2	86.6	91.2
30730-04	44.4	48.9	52.6	58.7	63.3	68.6	73.6	78.0	81.9	88.4
30730-12	54.3	58.6	63.0	68.8	75.0	78.8	85.9	90.6	98.8	83.7
30731-12	37.3	42.5	45.6	52.6	56.8	60.4	65.2	72.0	76.7	85.6
30733-01	47.3	51.7	56.2	61.8	64.0	69.8	75.3	78.7	85.4	90.5
MEAN	46.4	50.7	55.0	60.3	65.3	69.7	75.2	80.3	86.2	90.2
S. D.	5.36	4.92	5.38	5.60	5.82	6.34	6.56	6.75	7.15	6.70
N	15	15	15	15	15	15	15	15	15	15

TABLE 15
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL BODY WEIGHTS [G]

FEMALES

DAY	32	33	34	35	36	37	38	39	40	41
ANIMALS FROM GROUP 2: TS03017 60										
30721-02	98.1	101.2	108.7	113.3	116.4	120.0	125.4	129.3	134.0	139.4
30721-11	89.9	93.3	98.7	104.5	111.7	113.0	119.2	122.8	130.4	135.0
30722-04	92.6	97.4	102.6	106.5	110.7	116.5	121.7	127.1	139.3	143.9
30723-05	87.4	92.0	97.4	99.6	105.6	110.1	115.5	118.8	120.5	125.6
30724-09	92.2	98.1	102.1	105.2	110.7	117.3	119.1	125.9	124.5	131.8
30725-04	97.5	99.5	107.9	111.0	114.7	122.8	128.0	138.4	135.0	140.1
30726-01	102.3	110.2	113.4	117.1	123.7	126.6	133.1	141.1	134.3	146.9
30726-07	110.6	119.1	122.8	128.6	131.3	140.7	143.0	148.3	153.3	154.5
30726-08	94.4	102.0	106.6	112.8	116.8	126.0	130.7	141.7	142.1	151.9
30728-05	104.7	111.9	118.8	123.7	130.7	136.0	143.4	152.0	151.4	157.0
30729-08	97.4	104.1	112.9	114.3	119.2	125.0	134.9	138.7	140.6	145.9
30730-04	90.3	96.9	102.8	106.1	112.8	117.0	124.2	126.6	131.8	134.1
30730-12	110.5	116.4	121.5	125.1	129.7	136.6	139.1	142.9	146.2	153.8
30731-12	91.0	99.9	102.1	112.1	115.9	124.5	132.0	134.7	142.8	149.9
30733-01	97.1	103.9	108.3	113.1	116.8	125.3	128.5	133.7	136.2	138.2
MEAN	97.1	103.1	108.4	112.9	117.8	123.8	129.2	134.8	137.5	143.2
S.D.	7.21	8.04	8.00	8.15	7.82	8.77	8.60	9.62	9.07	9.30
N	15	15	15	15	15	15	15	15	15	15

TABLE 15
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL BODY WEIGHTS [G]

FEMALES

DAY 42

ANIMALS FROM GROUP 2:	TS03017 60	
30721-02	138.9	SCHED EUTH DAY 42
30721-11	140.8	SCHED EUTH DAY 42
30722-04	147.1	SCHED EUTH DAY 42
30723-05	130.4	SCHED EUTH DAY 42
30724-09	138.5	SCHED EUTH DAY 42
30725-04	147.9	SCHED EUTH DAY 42
30726-01	149.8	SCHED EUTH DAY 42
30726-07	160.8	SCHED EUTH DAY 42
30726-08	156.6	SCHED EUTH DAY 42
30728-05	155.8	SCHED EUTH DAY 42
30729-08	149.8	SCHED EUTH DAY 42
30730-04	136.7	SCHED EUTH DAY 42
30730-12	157.9	SCHED EUTH DAY 42
30731-12	155.6	SCHED EUTH DAY 42
30733-01	143.7	SCHED EUTH DAY 42
MEAN	147.4	
S.D.	9.01	
N	15	

TABLE 15
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL BODY WEIGHTS [G]

FEMALES

DAY	22	23	24	25	26	27	28	29	30	31
ANIMALS FROM GROUP 3: TS03017 250										
30721-04	47.0	51.7	55.5	60.0	64.4	68.7	74.9	79.6	83.7	89.7
30721-08	44.1	47.6	51.3	56.7	61.6	66.2	71.2	76.7	82.1	90.1
30723-07	47.5	51.0	55.0	59.2	63.0	68.6	72.1	77.1	80.6	86.8
30723-08	42.0	46.0	49.1	54.4	57.9	62.1	67.0	72.6	77.0	81.3
30723-09	42.7	46.9	50.1	55.9	59.3	64.0	67.9	71.0	76.8	79.6
30725-10	49.0	54.0	60.1	63.9	69.8	75.1	79.3	85.6	91.7	99.9
30725-12	45.9	47.8	53.0	59.9	64.4	70.5	76.2	82.3	89.7	95.8
30726-13	44.9	49.1	52.8	58.7	62.6	67.6	72.0	79.1	84.5	92.3
30728-11	44.0	52.7	57.0	61.5	65.5	70.6	74.6	80.4	85.6	89.5
30728-13	50.8	55.7	58.6	64.6	69.4	72.8	78.7	83.7	88.2	95.7
30730-10	54.4	57.5	63.1	66.7	71.9	75.9	81.9	86.6	91.6	94.8
30731-01	38.8	41.2	47.3	51.7	55.2	60.4	63.8	69.8	74.1	81.4
30731-09	43.2	46.9	53.1	57.7	60.5	65.3	72.0	75.8	80.9	86.5
30733-06	46.4	50.7	56.7	62.5	65.0	70.8	77.8	82.6	88.7	93.0
30733-07	52.3	56.3	61.6	64.9	70.0	73.9	78.6	84.1	91.4	92.8
MEAN	46.2	50.3	55.0	59.9	64.0	68.8	73.9	79.1	84.4	89.9
S.D.	4.14	4.46	4.63	4.22	4.80	4.64	5.10	5.24	5.78	5.92
N	15	15	15	15	15	15	15	15	15	15

TABLE 15
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL BODY WEIGHTS [G]

FEMALES

DAY	32	33	34	35	36	37	38	39	40	41
ANIMALS FROM GROUP 3: TS03017 250										
30721-04	96.7	99.4	104.5	109.9	113.8	121.5	120.8	122.6	124.8	133.8
30721-08	96.8	100.0	107.7	113.1	119.7	120.8	129.8	134.4	137.4	137.8
30723-07	91.6	95.8	98.4	103.1	104.7	108.4	112.1	115.2	119.6	118.0
30723-08	87.1	91.2	99.7	103.6	108.2	115.5	117.1	128.7	127.4	132.2
30723-09	86.4	91.6	97.1	101.7	103.5	114.1	112.8	122.6	122.1	126.8
30725-10	103.4	111.5	114.8	121.2	123.9	124.8	135.9	138.5	147.2	145.9
30725-12	103.0	108.8	117.3	123.1	130.4	133.6	141.0	150.7	153.8	156.7
30726-13	95.2	101.2	106.7	111.9	119.1	122.9	126.3	133.7	136.2	139.3
30728-11	93.3	97.8	101.2	104.5	109.1	114.1	113.2	118.7	123.3	125.3
30728-13	101.0	104.5	111.8	115.8	119.1	125.9	131.3	139.9	144.0	144.1
30730-10	102.6	106.1	112.7	114.9	117.9	116.7	126.4	128.6	135.7	136.6
30731-01	85.4	91.5	96.6	105.3	111.0	114.3	126.1	121.7	132.5	142.1
30731-09	95.0	100.3	108.2	113.5	123.5	125.7	129.7	133.7	139.8	139.2
30733-06	98.9	107.9	113.0	120.6	122.7	129.6	132.6	137.0	139.8	145.1
30733-07	100.2	105.4	111.4	117.9	117.8	125.7	124.7	129.9	137.9	139.5
MEAN	95.8	100.9	106.7	112.0	116.3	120.9	125.3	130.4	134.8	137.5
S.D.	6.04	6.50	6.83	7.09	7.71	6.90	8.68	9.34	9.83	9.48
N	15	15	15	15	15	15	15	15	15	15

TABLE 15
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL BODY WEIGHTS [G]

FEMALES

DAY 42

ANIMALS FROM GROUP 3:	TS03017 250	
30721-04	137.1	SCHED EUTH DAY 42
30721-08	143.4	SCHED EUTH DAY 42
30723-07	122.9	SCHED EUTH DAY 42
30723-08	134.5	SCHED EUTH DAY 42
30723-09	126.9	SCHED EUTH DAY 42
30725-10	149.3	SCHED EUTH DAY 42
30725-12	161.3	SCHED EUTH DAY 42
30726-13	145.0	SCHED EUTH DAY 42
30728-11	128.3	SCHED EUTH DAY 42
30728-13	150.8	SCHED EUTH DAY 42
30730-10	137.0	SCHED EUTH DAY 42
30731-01	143.9	SCHED EUTH DAY 42
30731-09	143.8	SCHED EUTH DAY 42
30733-06	146.0	SCHED EUTH DAY 42
30733-07	146.4	SCHED EUTH DAY 42
MEAN	141.1	
S.D.	10.11	
N	15	

TABLE 15
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL BODY WEIGHTS [G]

FEMALES

DAY	22	23	24	25	26	27	28	29	30	31
ANIMALS FROM GROUP 4: TS03017 1000										
30721-01	47.9	55.8	57.3	60.5	65.1	69.9	75.4	79.4	86.1	92.1
30721-14	44.1	53.5	52.8	56.7	62.8	67.7	73.9	80.9	85.1	89.9
30722-03	42.7	47.9	51.5	55.9	61.3	66.2	71.5	77.6	83.7	85.9
30723-06	41.4	44.5	49.3	53.5	58.3	62.0	65.7	69.4	69.2	74.3
30724-01	47.8	51.5	56.4	61.7	65.6	70.2	75.4	81.4	85.7	91.9
30725-03	45.9	51.1	56.5	61.6	65.8	69.3	78.7	81.0	85.8	90.5
30725-05	47.2	52.4	57.0	62.2	67.3	73.2	78.7	84.4	89.5	95.2
30725-08	52.1	56.5	59.8	66.9	72.0	78.3	83.3	89.5	95.3	99.8
30726-03	55.9	60.5	66.0	73.3	79.0	83.8	89.5	96.2	100.7	105.3
30728-01	53.9	57.7	62.7	68.8	74.6	79.3	85.5	87.6	91.6	96.9
30730-11	48.3	51.2	57.1	60.6	65.7	70.5	76.7	81.7	88.8	95.3
30731-05	37.2	39.0	43.3	47.1	52.1	57.4	61.3	67.0	72.6	79.1
30731-07	41.3	43.5	48.4	53.3	56.4	61.5	65.4	70.2	75.6	80.8
30733-04	54.8	57.8	61.5	66.8	70.0	76.3	81.5	87.3	93.7	96.4
30733-09	50.2	52.8	56.6	61.4	65.5	71.2	76.5	80.6	81.3	86.4
MEAN	47.4	51.7	55.7	60.7	65.4	70.5	75.9	80.9	85.6	90.7
S.D.	5.43	5.92	5.90	6.74	6.92	7.12	7.71	7.84	8.49	8.26
N	15	15	15	15	15	15	15	15	15	15

TABLE 15
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL BODY WEIGHTS [G]

FEMALES

DAY	32	33	34	35	36	37	38	39	40	41
ANIMALS FROM GROUP 4: TS03017 1000										
30721-01	94.6	100.7	106.3	112.1	118.2	124.6	131.6	137.1	145.3	149.0
30721-14	98.1	102.5	109.3	113.2	117.6	123.9	126.0	132.1	125.6	135.3
30722-03	94.1	99.2	108.6	112.8	119.9	127.5	133.2	138.6	146.2	148.9
30723-06	78.3	81.5	85.9	89.1	90.8	95.2	95.6	98.0	101.8	104.1
30724-01	97.7	103.0	108.9	110.4	111.9	118.1	121.1	123.4	116.8	116.2
30725-03	97.5	98.8	104.8	108.4	115.4	116.7	124.8	129.2	133.9	135.0
30725-05	99.9	106.7	112.6	120.1	125.9	131.2	138.4	138.1	144.6	146.5
30725-08	102.9	111.1	115.5	121.0	128.7	130.5	138.1	138.3	139.1	145.5
30726-03	109.8	117.8	123.1	131.2	136.5	134.1	142.8	127.8	138.0	142.1
30728-01	103.9	110.0	117.9	121.5	126.5	129.2	132.1	136.3	138.9	142.4
30730-11	98.8	108.6	114.7	120.1	126.0	130.7	134.3	139.9	144.4	147.4
30731-05	84.8	91.2	95.8	105.0	109.9	118.6	126.9	126.9	132.2	137.4
30731-07	86.4	90.8	98.8	104.8	105.8	115.8	113.8	119.2	125.6	130.8
30733-04	104.5	111.3	113.0	118.5	125.4	134.2	130.0	131.5	136.3	145.3
30733-09	93.5	99.4	103.6	112.7	118.4	124.9	128.4	130.9	138.7	144.5
MEAN	96.3	102.2	107.9	113.4	118.5	123.7	127.8	129.8	133.8	138.0
S. D.	8.22	9.40	9.37	9.74	11.05	9.99	11.48	10.70	12.15	12.77
N	15	15	15	15	15	15	15	15	15	15

TABLE 15
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL BODY WEIGHTS [G]

FEMALES

DAY 42

ANIMALS FROM GROUP 4: TS03017 1000

30721-01	154.4	SCHED EUTH DAY 42
30721-14	141.4	SCHED EUTH DAY 42
30722-03	155.0	SCHED EUTH DAY 42
30723-06	109.2	SCHED EUTH DAY 42
30724-01	123.9	SCHED EUTH DAY 42
30725-03	135.4	SCHED EUTH DAY 42
30725-05	151.6	SCHED EUTH DAY 42
30725-08	152.7	SCHED EUTH DAY 42
30726-03	148.7	SCHED EUTH DAY 42
30728-01	150.1	SCHED EUTH DAY 42
30730-11	148.8	SCHED EUTH DAY 42
30731-05	139.9	SCHED EUTH DAY 42
30731-07	136.8	SCHED EUTH DAY 42
30733-04	149.2	SCHED EUTH DAY 42
30733-09	147.9	SCHED EUTH DAY 42
MEAN	143.0	
S.D.	12.64	
N	15	

TABLE 15
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL BODY WEIGHTS [G]

FEMALES

DAY	22	23	24	25	26	27	28	29	30	31
ANIMALS FROM GROUP 5: TS03018 60										
30721-09	42.4	47.0	51.1	55.1	60.7	64.4	69.5	73.4	78.5	84.0
30721-13	45.2	48.8	53.7	57.8	63.5	68.5	72.6	75.9	81.1	84.9
30722-06	40.3	43.5	46.8	50.5	54.5	56.9	60.9	65.0	66.6	72.7
30723-01	46.5	50.6	54.8	59.4	64.0	70.0	71.7	75.9	85.7	91.2
30724-10	45.6	50.0	53.8	58.3	63.3	69.0	74.3	78.6	86.0	91.4
30725-01	45.6	48.6	53.9	60.1	65.6	73.8	78.4	81.7	86.0	92.9
30725-06	49.9	52.7	58.0	63.0	67.3	73.1	77.8	83.8	89.7	94.6
30726-12	50.4	53.6	58.6	64.2	68.6	74.0	78.7	85.3	87.7	96.8
30728-07	50.3	54.0	57.8	61.7	65.6	70.1	73.9	76.4	81.2	87.5
30728-14	51.5	54.0	58.8	63.0	66.7	71.4	75.2	80.6	85.1	93.5
30729-09	52.6	58.0	63.2	67.9	74.7	77.9	85.1	91.7	97.9	103.4
30730-08	48.3	52.4	57.1	60.9	66.0	70.3	74.8	80.3	86.2	91.5
30731-03	42.4	48.7	52.7	58.9	61.8	67.5	73.8	78.0	83.4	87.4
30731-06	38.7	43.4	49.3	55.2	58.9	64.0	71.5	73.1	79.5	83.4
30733-08	48.9	53.8	58.4	64.1	68.3	72.0	77.4	82.7	89.3	94.2
MEAN	46.6	50.6	55.2	60.0	64.6	69.5	74.4	78.8	84.3	90.0
S.D.	4.21	4.06	4.24	4.35	4.69	5.03	5.32	6.20	6.83	7.12
N	15	15	15	15	15	15	15	15	15	15

TABLE 15
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL BODY WEIGHTS [G]

FEMALES

DAY	32	33	34	35	36	37	38	39	40	41
ANIMALS FROM GROUP 5: TS03018 60										
30721-09	93.0	94.1	100.0	104.9	114.7	117.7	118.2	123.1	133.1	134.4
30721-13	90.7	96.9	100.5	104.0	108.4	115.1	117.6	125.6	124.7	131.7
30722-06	76.7	78.2	82.9	85.5	88.9	97.0	100.7	105.9	111.7	116.4
30723-01	97.2	102.8	110.3	111.8	117.4	124.2	131.2	138.3	144.2	143.4
30724-10	96.6	101.9	107.8	109.3	116.6	119.0	123.5	131.5	136.3	136.0
30725-01	97.1	104.1	105.5	113.5	119.1	121.7	127.0	133.6	136.9	136.1
30725-06	100.4	105.9	112.0	116.3	120.8	126.3	130.1	134.5	139.4	140.2
30726-12	101.4	106.8	108.0	114.6	121.2	124.0	129.8	126.9	134.2	141.2
30728-07	92.2	97.4	103.8	108.6	114.7	119.8	123.3	130.4	134.6	138.3
30728-14	97.3	103.2	107.0	113.9	119.3	120.9	124.1	130.0	133.9	135.7
30729-09	112.8	120.0	125.1	131.3	134.5	141.0	149.2	148.5	154.3	160.7
30730-08	96.0	103.5	105.9	114.1	118.3	127.5	128.7	133.4	135.6	143.7
30731-03	94.6	98.3	104.3	112.3	115.9	119.7	127.0	131.2	129.8	139.3
30731-06	89.9	94.7	99.8	107.0	112.7	117.1	124.0	128.6	131.9	138.6
30733-08	99.5	105.3	113.6	120.1	126.1	136.3	137.0	138.9	144.7	154.7
MEAN	95.7	100.9	105.8	111.1	116.6	121.8	126.1	130.7	135.0	139.4
S. D.	7.60	8.89	8.99	9.72	9.72	9.85	10.42	9.22	9.51	9.92
N	15	15	15	15	15	15	15	15	15	15

TABLE 15
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL BODY WEIGHTS [G]

FEMALES

DAY 42

ANIMALS FROM GROUP 5: TS03018 60

30721-09	135.1	SCHED EUTH DAY 42
30721-13	136.7	SCHED EUTH DAY 42
30722-06	120.2	SCHED EUTH DAY 42
30723-01	151.3	SCHED EUTH DAY 42
30724-10	141.6	SCHED EUTH DAY 42
30725-01	141.2	SCHED EUTH DAY 42
30725-06	141.6	SCHED EUTH DAY 42
30726-12	138.0	SCHED EUTH DAY 42
30728-07	141.2	SCHED EUTH DAY 42
30728-14	138.8	SCHED EUTH DAY 42
30729-09	164.9	SCHED EUTH DAY 42
30730-08	144.0	SCHED EUTH DAY 42
30731-03	146.9	SCHED EUTH DAY 42
30731-06	143.4	SCHED EUTH DAY 42
30733-08	156.6	SCHED EUTH DAY 42
MEAN	142.8	
S.D.	10.09	
N	15	

TABLE 15
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL BODY WEIGHTS [G]

FEMALES

DAY	22	23	24	25	26	27	28	29	30	31
ANIMALS FROM GROUP 6: TS03018 250										
30721-03	45.0	48.5	52.3	57.8	62.2	65.7	69.3	74.3	78.7	82.1
30721-12	45.3	49.5	53.5	59.7	66.6	71.8	76.4	81.9	88.9	94.8
30723-04	47.2	50.7	56.3	60.9	67.0	72.2	76.9	82.0	86.6	93.3
30723-14	42.9	48.6	52.7	56.8	62.6	67.6	72.4	77.1	77.6	87.1
30724-14	47.5	51.5	56.6	62.6	67.3	72.7	77.6	82.3	82.2	94.8
30725-07	50.8	55.3	60.8	66.3	71.5	75.7	82.9	82.1	95.8	100.6
30725-09	44.8	49.4	53.9	58.7	64.6	69.2	74.5	79.5	85.2	90.1
30726-02	45.4	48.2	52.8	59.6	65.0	69.9	73.5	80.1	86.3	94.0
30726-06	56.0	60.1	65.1	70.4	76.2	84.2	87.5	95.8	97.9	109.0
30728-12	48.5	52.8	56.7	61.0	64.9	68.1	74.0	79.1	85.3	90.2
30729-03	50.2	56.0	61.1	66.7	70.7	77.5	82.0	86.7	93.1	94.5
30729-05	48.5	52.4	58.1	62.3	68.3	74.0	78.5	83.6	91.2	96.8
30731-08	34.7	36.9	42.9	47.3	51.7	55.3	59.0	64.9	70.1	73.4
30731-11	37.2	39.8	45.2	49.9	54.5	58.3	63.2	69.2	72.9	79.0
30733-03	54.1	59.9	65.6	71.9	78.4	83.1	89.3	96.3	99.7	108.1
MEAN	46.5	50.6	55.6	60.8	66.1	71.0	75.8	81.0	86.1	92.5
S.D.	5.58	6.31	6.33	6.65	7.00	7.83	8.13	8.29	8.76	9.68
N	15	15	15	15	15	15	15	15	15	15

TABLE 15
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL BODY WEIGHTS [G]

FEMALES

DAY	32	33	34	35	36	37	38	39	40	41
ANIMALS FROM GROUP 6: TS03018 250										
30721-03	86.3	88.5	93.6	98.2	102.0	104.7	106.6	109.8	114.5	115.3
30721-12	101.7	105.6	112.9	119.8	123.0	130.5	136.7	139.6	149.9	147.9
30723-04	100.2	103.4	109.2	110.8	117.7	124.0	127.9	133.6	140.9	143.0
30723-14	92.3	96.8	100.6	107.2	111.4	116.7	120.9	122.5	129.2	133.1
30724-14	98.4	103.8	110.0	118.3	122.6	129.1	129.9	140.2	144.1	143.1
30725-07	101.7	109.0	116.1	121.4	129.7	135.1	138.0	148.4	146.7	158.5
30725-09	94.9	99.0	105.3	109.6	114.8	120.6	122.2	126.5	129.6	131.2
30726-02	98.5	105.6	110.2	114.4	121.1	125.0	131.2	133.7	140.2	140.5
30726-06	110.0	116.9	125.3	130.2	135.8	140.0	141.8	152.1	152.7	154.1
30728-12	95.6	101.6	105.1	111.4	118.0	119.8	121.9	132.4	134.8	137.3
30729-03	101.7	106.4	110.4	115.1	123.4	126.1	126.3	126.4	134.9	138.5
30729-05	101.7	108.5	113.0	122.2	128.4	130.9	139.5	143.0	149.0	153.0
30731-08	79.9	86.3	90.6	95.6	102.3	106.8	112.5	116.7	121.3	126.6
30731-11	83.9	89.0	94.6	102.7	107.0	112.1	117.0	119.4	128.1	129.8
30733-03	111.7	119.1	120.9	125.8	131.6	132.4	141.0	140.9	144.1	148.9
MEAN	97.2	102.6	107.9	113.5	119.3	123.6	127.6	132.3	137.3	140.1
S. D.	8.84	9.58	9.84	9.90	10.30	10.22	10.76	12.07	11.12	11.65
N	15	15	15	15	15	15	15	15	15	15

TABLE 15
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL BODY WEIGHTS [G]

FEMALES

DAY 42

ANIMALS FROM GROUP 6: TS03018 250

30721-03	118.8	SCHED EUTH DAY 42
30721-12	154.0	SCHED EUTH DAY 42
30723-04	144.6	SCHED EUTH DAY 42
30723-14	129.5	SCHED EUTH DAY 42
30724-14	147.5	SCHED EUTH DAY 42
30725-07	159.3	SCHED EUTH DAY 42
30725-09	137.3	SCHED EUTH DAY 42
30726-02	143.6	SCHED EUTH DAY 42
30726-06	155.8	SCHED EUTH DAY 42
30728-12	147.5	SCHED EUTH DAY 42
30729-03	141.6	SCHED EUTH DAY 42
30729-05	159.0	SCHED EUTH DAY 42
30731-08	129.9	SCHED EUTH DAY 42
30731-11	132.0	SCHED EUTH DAY 42
30733-03	154.1	SCHED EUTH DAY 42
MEAN	143.6	
S.D.	12.14	
N	15	

TABLE 15
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL BODY WEIGHTS [G]

FEMALES

DAY	22	23	24	25	26	27	28	29	30	31
ANIMALS FROM GROUP 7: TS03018 1000										
30721-07	44.9	50.6	52.4	56.7	62.3	67.5	72.2	76.9	84.3	89.2
30723-02	43.3	47.7	47.3	46.6	49.0	54.9	60.3	63.8	69.3	73.1
30724-03	47.1	50.7	53.6	54.8	58.1	63.1	66.7	70.9	76.7	81.8
30724-11	40.9	43.3	43.4	49.1	54.0	56.7	62.7	66.2	71.1	76.4
30724-12	48.3	51.0	54.6	57.4	63.5	66.4	72.5	76.0	81.3	84.7
30725-11	43.7	39.6	NA	DIED DAY 24						
30726-09	49.9	51.7	57.1	63.1	69.0	74.7	81.0	88.8	93.0	101.6
30726-10	51.2	54.5	58.4	63.6	67.0	73.7	75.9	80.3	84.8	91.0
30726-14	46.3	47.9	47.1	50.1	58.4	61.4	61.9	69.4	71.0	77.7
30728-04	54.0	55.8	54.6	54.5	60.1	64.4	68.4	72.2	77.5	83.2
30730-01	49.3	50.7	51.7	57.5	61.4	65.5	71.2	76.6	81.1	86.4
30730-07	53.4	53.5	57.0	58.2	64.9	66.4	70.5	78.1	82.4	90.1
30731-02	33.9	31.8	31.1	DIED DAY 24						
30733-05	41.8	45.1	48.6	53.5	60.1	61.4	64.7	69.2	77.9	80.1
30733-10	46.6	45.1	47.3	49.7	56.7	62.9	67.0	71.5	79.1	80.6
MEAN	46.3	47.9	50.3	55.0	60.3	64.5	68.8	73.8	79.2	84.3
S.D.	5.22	6.26	7.12	5.20	5.37	5.65	5.88	6.60	6.50	7.51
N	15	15	14	13	13	13	13	13	13	13

NA = NOT APPLICABLE

TABLE 15
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL BODY WEIGHTS [G]

FEMALES

DAY	32	33	34	35	36	37	38	39	40	41
ANIMALS FROM GROUP 7: TS03018 1000										
30721-07	97.6	103.5	107.2	111.3	119.9	125.0	131.0	137.2	140.4	141.6
30723-02	78.3	80.6	85.2	88.7	96.8	99.2	106.3	108.2	117.4	118.6
30724-03	86.9	92.1	96.3	100.7	107.3	111.5	118.4	122.6	132.7	133.7
30724-11	82.3	86.0	93.0	96.6	100.2	107.6	111.7	113.9	119.8	123.4
30724-12	91.7	96.7	102.9	108.3	113.2	113.9	122.8	126.6	133.6	133.5
30726-09	105.9	116.5	121.2	123.6	135.2	141.9	146.4	150.7	157.7	159.2
30726-10	98.3	103.2	106.6	112.1	121.0	124.0	127.5	132.8	136.1	140.8
30726-14	80.2	88.6	92.4	96.9	103.0	105.2	112.4	112.7	119.6	121.7
30728-04	88.0	92.7	98.7	104.5	111.1	114.8	120.7	125.5	127.3	134.3
30730-01	90.3	95.0	100.3	105.2	108.0	113.4	119.1	120.7	125.8	127.3
30730-07	92.8	99.0	102.8	110.4	114.3	123.3	125.0	129.7	136.9	140.7
30733-05	83.4	90.9	94.7	103.6	105.8	111.4	119.6	123.9	127.2	131.4
30733-10	87.5	92.8	99.9	103.6	110.2	113.5	121.0	126.8	132.1	137.2
MEAN	89.5	95.2	100.1	105.0	111.2	115.7	121.7	125.5	131.3	134.1
S.D.	7.87	9.06	8.81	8.66	10.05	10.79	9.96	11.10	10.67	10.59
N	13	13	13	13	13	13	13	13	13	13

TABLE 15
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL BODY WEIGHTS [G]

FEMALES

DAY 42

ANIMALS FROM GROUP 7: TS03018 1000		
30721-07	149.2	SCHED EUTH DAY 42
30723-02	120.4	SCHED EUTH DAY 42
30724-03	137.4	SCHED EUTH DAY 42
30724-11	128.6	SCHED EUTH DAY 42
30724-12	138.9	SCHED EUTH DAY 42
30726-09	160.4	SCHED EUTH DAY 42
30726-10	142.7	SCHED EUTH DAY 42
30726-14	123.5	SCHED EUTH DAY 42
30728-04	135.4	SCHED EUTH DAY 42
30730-01	131.7	SCHED EUTH DAY 42
30730-07	144.4	SCHED EUTH DAY 42
30733-05	138.7	SCHED EUTH DAY 42
30733-10	141.0	SCHED EUTH DAY 42
MEAN	137.9	
S.D.	10.63	
N	13	

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R: 08/11/2003

TABLE 16
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL BODY WEIGHT CHANGES [G]

FEMALES

DAY	22- 23	23- 24	24- 25	25- 26	26- 27	27- 28	28- 29	29- 30	30- 31	31- 32
ANIMALS FROM GROUP 1: CORN OIL										
30721-05	3.6	4.5	5.9	3.0	6.5	4.4	3.4	6.0	5.5	5.3
30722-01	4.9	2.0	4.4	4.0	4.5	4.3	3.4	5.4	3.4	6.1
30723-03	3.7	3.9	4.9	5.3	3.9	4.9	4.8	6.1	4.3	6.3
30723-11	4.3	4.7	4.1	5.2	4.1	5.1	4.7	4.5	5.5	5.9
30723-12	3.7	3.5	4.7	4.9	4.0	4.0	4.8	3.8	6.4	2.4
30725-02	4.2	6.0	4.9	6.9	5.0	6.5	7.5	5.2	5.6	7.7
30725-13	4.6	4.4	6.1	3.7	4.6	3.2	6.0	6.4	4.8	5.3
30726-05	4.2	6.1	7.7	5.1	6.2	4.4	8.3	5.7	5.2	6.0
30727-09	2.9	5.8	3.9	3.7	4.1	3.5	4.8	2.5	6.7	1.5
30728-06	3.9	4.2	3.8	4.6	5.2	4.4	6.1	6.2	5.8	4.8
30731-04	3.0	4.9	3.3	5.8	3.3	3.4	4.2	3.8	5.1	4.7
30731-10	3.6	5.3	4.3	4.5	4.6	4.8	4.9	5.1	5.1	6.4
30733-02	4.4	3.6	5.6	3.5	5.2	5.7	4.3	5.2	5.8	3.3
30733-12	4.1	7.1	4.0	4.9	6.9	2.6	5.9	6.7	4.5	5.6
30733-13	5.2	5.0	2.3	6.7	4.2	7.0	4.2	5.1	5.5	4.6
MEAN	4.0	4.7	4.7	4.8	4.8	4.5	5.2	5.2	5.3	5.1
S.D.	0.64	1.26	1.30	1.12	1.03	1.20	1.39	1.14	0.82	1.62
N	15	15	15	15	15	15	15	15	15	15

TABLE 16
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL BODY WEIGHT CHANGES [G]

FEMALES

DAY	32- 33	33- 34	34- 35	35- 36	36- 37	37- 38	38- 39	39- 40	40- 41	41- 42
ANIMALS FROM GROUP 1: CORN OIL										
30721-05	4.9	6.4	3.0	1.6	7.1	4.3	6.5	8.3	-5.0	7.5
30722-01	2.6	3.1	4.7	2.5	3.5	2.0	2.3	4.5	0.7	6.1
30723-03	5.0	3.5	5.2	2.9	6.2	3.2	-0.3	12.7	4.1	2.5
30723-11	4.8	8.3	4.7	1.9	8.3	4.7	2.2	8.0	0.6	5.9
30723-12	0.8	6.7	4.1	2.5	7.0	-0.3	3.9	8.9	-5.2	7.0
30725-02	4.8	2.8	6.9	1.0	7.9	4.8	8.3	0.9	1.8	7.0
30725-13	4.4	3.4	1.8	8.5	2.6	5.6	1.8	3.6	2.2	4.8
30726-05	4.4	5.6	5.0	5.0	4.6	4.5	11.0	-3.0	10.0	-2.9
30727-09	4.4	3.6	2.2	3.9	3.1	3.5	3.3	5.3	-2.7	2.7
30728-06	4.3	6.4	5.7	4.5	5.4	2.5	6.6	5.0	6.6	2.7
30731-04	2.7	5.8	5.4	4.3	6.6	1.0	5.1	2.0	4.7	6.0
30731-10	4.7	3.9	5.5	7.3	5.8	3.3	3.4	6.2	4.9	1.7
30733-02	8.1	3.0	4.3	5.5	3.0	6.8	3.5	4.5	2.3	3.8
30733-12	6.7	7.3	5.4	5.2	8.9	3.5	3.0	-1.3	12.3	5.6
30733-13	6.6	4.5	6.2	6.6	0.7	10.4	3.6	4.1	2.3	7.8
MEAN	4.6	5.0	4.7	4.2	5.4	4.0	4.3	4.6	2.6	4.5
S.D.	1.76	1.79	1.42	2.19	2.39	2.51	2.83	4.03	4.87	2.85
N	15	15	15	15	15	15	15	15	15	15

TABLE 16
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL BODY WEIGHT CHANGES [G]

FEMALES

DAY 22- 42

ANIMALS FROM GROUP 1:	CORN OIL	
30721-05	92.7	SCHED EUTH DAY 42
30722-01	74.4	SCHED EUTH DAY 42
30723-03	93.1	SCHED EUTH DAY 42
30723-11	97.5	SCHED EUTH DAY 42
30723-12	77.6	SCHED EUTH DAY 42
30725-02	105.7	SCHED EUTH DAY 42
30725-13	87.8	SCHED EUTH DAY 42
30726-05	103.1	SCHED EUTH DAY 42
30727-09	68.7	SCHED EUTH DAY 42
30728-06	98.7	SCHED EUTH DAY 42
30731-04	85.1	SCHED EUTH DAY 42
30731-10	95.3	SCHED EUTH DAY 42
30733-02	91.4	SCHED EUTH DAY 42
30733-12	108.9	SCHED EUTH DAY 42
30733-13	102.6	SCHED EUTH DAY 42
MEAN	92.2	
S.D.	11.72	
N	15	

TABLE 16
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL BODY WEIGHT CHANGES [G]

FEMALES

DAY	22- 23	23- 24	24- 25	25- 26	26- 27	27- 28	28- 29	29- 30	30- 31	31- 32
ANIMALS FROM GROUP 2: TS03017 60										
30721-02	4.8	2.7	4.8	6.8	3.8	5.4	5.3	5.6	4.7	7.8
30721-11	5.0	3.1	4.1	5.8	2.7	6.2	5.4	6.8	3.9	5.2
30722-04	4.0	3.3	3.9	6.9	2.4	6.5	2.9	6.3	4.0	7.3
30723-05	4.8	2.9	5.0	3.6	3.9	4.9	4.1	5.2	6.2	4.4
30724-09	5.0	3.5	4.5	5.1	4.8	4.6	4.7	5.1	3.3	6.8
30725-04	5.4	6.0	5.6	5.5	3.8	7.5	5.4	7.5	2.6	8.8
30726-01	3.5	6.4	6.2	4.0	7.1	6.0	7.1	4.5	7.0	2.5
30726-07	3.5	4.6	7.2	6.4	5.1	5.8	4.6	6.8	6.2	4.6
30726-08	2.8	5.7	4.5	5.2	5.3	4.4	5.6	5.6	7.4	3.0
30728-05	3.2	5.4	4.4	4.3	5.0	5.5	6.6	5.1	5.9	5.2
30729-08	4.6	5.0	4.8	4.0	4.9	2.6	5.9	5.4	4.6	6.2
30730-04	4.5	3.7	6.1	4.6	5.3	5.0	4.4	3.9	6.5	1.9
30730-12	4.3	4.4	5.8	6.2	3.8	7.1	4.7	8.2	-15.1	26.8
30731-12	5.2	3.1	7.0	4.2	3.6	4.8	6.8	4.7	8.9	5.4
30733-01	4.4	4.5	5.6	2.2	5.8	5.5	3.4	6.7	5.1	6.6
MEAN	4.3	4.3	5.3	5.0	4.5	5.5	5.1	5.8	4.1	6.8
S. D.	0.78	1.21	1.02	1.32	1.22	1.19	1.20	1.19	5.56	5.86
N	15	15	15	15	15	15	15	15	15	15

TABLE 16
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL BODY WEIGHT CHANGES [G]

FEMALES

DAY	32- 33	33- 34	34- 35	35- 36	36- 37	37- 38	38- 39	39- 40	40- 41	41- 42
ANIMALS FROM GROUP 2:	TS03017 60									
30721-02	3.1	7.5	4.6	3.1	3.6	5.4	3.9	4.7	5.4	-0.5
30721-11	3.4	5.4	5.8	7.2	1.3	6.2	3.6	7.6	4.6	5.8
30722-04	4.8	5.2	3.9	4.2	5.8	5.2	5.4	12.2	4.6	3.2
30723-05	4.6	5.4	2.2	6.0	4.5	5.4	3.3	1.7	5.1	4.8
30724-09	5.9	4.0	3.1	5.5	6.6	1.8	6.8	-1.4	7.3	6.7
30725-04	2.0	8.4	3.1	3.7	8.1	5.2	10.4	-3.4	5.1	7.8
30726-01	7.9	3.2	3.7	6.6	2.9	6.5	8.0	-6.8	12.6	2.9
30726-07	8.5	3.7	5.8	2.7	9.4	2.3	5.3	5.0	1.2	6.3
30726-08	7.6	4.6	6.2	4.0	9.2	4.7	11.0	0.4	9.8	4.7
30728-05	7.2	6.9	4.9	7.0	5.3	7.4	8.6	-0.6	5.6	-1.2
30729-08	6.7	8.8	1.4	4.9	5.8	9.9	3.8	1.9	5.3	3.9
30730-04	6.6	5.9	3.3	6.7	4.2	7.2	2.4	5.2	2.3	2.6
30730-12	5.9	5.1	3.6	4.6	6.9	2.5	3.8	3.3	7.6	4.1
30731-12	8.9	2.2	10.0	3.8	8.6	7.5	2.7	8.1	7.1	5.7
30733-01	6.8	4.4	4.8	3.7	8.5	3.2	5.2	2.5	2.0	5.5
MEAN	6.0	5.4	4.4	4.9	6.0	5.4	5.6	2.7	5.7	4.2
S.D.	2.04	1.87	2.05	1.49	2.45	2.24	2.75	4.79	2.95	2.50
N	15	15	15	15	15	15	15	15	15	15

TABLE 16
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL BODY WEIGHT CHANGES [G]

FEMALES

DAY 22- 42

ANIMALS FROM GROUP 2:	TS03017 60	
30721-02	92.5	SCHED EUTH DAY 42
30721-11	99.1	SCHED EUTH DAY 42
30722-04	102.0	SCHED EUTH DAY 42
30723-05	88.0	SCHED EUTH DAY 42
30724-09	93.7	SCHED EUTH DAY 42
30725-04	108.5	SCHED EUTH DAY 42
30726-01	101.8	SCHED EUTH DAY 42
30726-07	105.0	SCHED EUTH DAY 42
30726-08	111.7	SCHED EUTH DAY 42
30728-05	101.7	SCHED EUTH DAY 42
30729-08	100.4	SCHED EUTH DAY 42
30730-04	92.3	SCHED EUTH DAY 42
30730-12	103.6	SCHED EUTH DAY 42
30731-12	118.3	SCHED EUTH DAY 42
30733-01	96.4	SCHED EUTH DAY 42
MEAN	101.0	
S.D.	7.97	
N	15	

TABLE 16
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL BODY WEIGHT CHANGES [G]

FEMALES

DAY	22- 23	23- 24	24- 25	25- 26	26- 27	27- 28	28- 29	29- 30	30- 31	31- 32
ANIMALS FROM GROUP 3: TS03017 250										
30721-04	4.7	3.8	4.5	4.4	4.3	6.2	4.7	4.1	6.0	7.0
30721-08	3.5	3.7	5.4	4.9	4.6	5.0	5.5	5.4	8.0	6.7
30723-07	3.5	4.0	4.2	3.8	5.6	3.5	5.0	3.5	6.2	4.8
30723-08	4.0	3.1	5.3	3.5	4.2	4.9	5.6	4.4	4.3	5.8
30723-09	4.2	3.2	5.8	3.4	4.7	3.9	3.1	5.8	2.8	6.8
30725-10	5.0	6.1	3.8	5.9	5.3	4.2	6.3	6.1	8.2	3.5
30725-12	1.9	5.2	6.9	4.5	6.1	5.7	6.1	7.4	6.1	7.2
30726-13	4.2	3.7	5.9	3.9	5.0	4.4	7.1	5.4	7.8	2.9
30728-11	8.7	4.3	4.5	4.0	5.1	4.0	5.8	5.2	3.9	3.8
30728-13	4.9	2.9	6.0	4.8	3.4	5.9	5.0	4.5	7.5	5.3
30730-10	3.1	5.6	3.6	5.2	4.0	6.0	4.7	5.0	3.2	7.8
30731-01	2.4	6.1	4.4	3.5	5.2	3.4	6.0	4.3	7.3	4.0
30731-09	3.7	6.2	4.6	2.8	4.8	6.7	3.8	5.1	5.6	8.5
30733-06	4.3	6.0	5.8	2.5	5.8	7.0	4.8	6.1	4.3	5.9
30733-07	4.0	5.3	3.3	5.1	3.9	4.7	5.5	7.3	1.4	7.4
MEAN	4.1	4.6	4.9	4.1	4.8	5.0	5.3	5.3	5.5	5.8
S. D.	1.53	1.22	1.03	0.94	0.75	1.16	1.00	1.11	2.10	1.72
N	15	15	15	15	15	15	15	15	15	15

TABLE 16
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL BODY WEIGHT CHANGES [G]

FEMALES

DAY	32- 33	33- 34	34- 35	35- 36	36- 37	37- 38	38- 39	39- 40	40- 41	41- 42
ANIMALS FROM GROUP 3: TS03017 250										
30721-04	2.7	5.1	5.4	3.9	7.7	-0.7	1.8	2.2	9.0	3.3
30721-08	3.2	7.7	5.4	6.6	1.1	9.0	4.6	3.0	0.4	5.6
30723-07	4.2	2.6	4.7	1.6	3.7	3.7	3.1	4.4	-1.6	4.9
30723-08	4.1	8.5	3.9	4.6	7.3	1.6	11.6	-1.3	4.8	2.3
30723-09	5.2	5.5	4.6	1.8	10.6	-1.3	9.8	-0.5	4.7	0.1
30725-10	8.1	3.3	6.4	2.7	0.9	11.1	2.6	8.7	-1.3	3.4
30725-12	5.8	8.5	5.8	7.3	3.2	7.4	9.7	3.1	2.9	4.6
30726-13	6.0	5.5	5.2	7.2	3.8	3.4	7.4	2.5	3.1	5.7
30728-11	4.5	3.4	3.3	4.6	5.0	-0.9	5.5	4.6	2.0	3.0
30728-13	3.5	7.3	4.0	3.3	6.8	5.4	8.6	4.1	0.1	6.7
30730-10	3.5	6.6	2.2	3.0	-1.2	9.7	2.2	7.1	0.9	0.4
30731-01	6.1	5.1	8.7	5.7	3.3	11.8	-4.4	10.8	9.6	1.8
30731-09	5.3	7.9	5.3	10.0	2.2	4.0	4.0	6.1	-0.6	4.6
30733-06	9.0	5.1	7.6	2.1	6.9	3.0	4.4	2.8	5.3	0.9
30733-07	5.2	6.0	6.5	-0.1	7.9	-1.0	5.2	8.0	1.6	6.9
MEAN	5.1	5.9	5.3	4.3	4.6	4.4	5.1	4.4	2.7	3.6
S. D.	1.76	1.88	1.64	2.68	3.21	4.52	4.01	3.32	3.43	2.20
N	15	15	15	15	15	15	15	15	15	15

TABLE 16
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL BODY WEIGHT CHANGES [G]

FEMALES

DAY 22- 42

ANIMALS FROM GROUP 3:	TS03017 250	
30721-04	90.1	SCHED EUTH DAY 42
30721-08	99.3	SCHED EUTH DAY 42
30723-07	75.4	SCHED EUTH DAY 42
30723-08	92.5	SCHED EUTH DAY 42
30723-09	84.2	SCHED EUTH DAY 42
30725-10	100.3	SCHED EUTH DAY 42
30725-12	115.4	SCHED EUTH DAY 42
30726-13	100.1	SCHED EUTH DAY 42
30728-11	84.3	SCHED EUTH DAY 42
30728-13	100.0	SCHED EUTH DAY 42
30730-10	82.6	SCHED EUTH DAY 42
30731-01	105.1	SCHED EUTH DAY 42
30731-09	100.6	SCHED EUTH DAY 42
30733-06	99.6	SCHED EUTH DAY 42
30733-07	94.1	SCHED EUTH DAY 42
MEAN	94.9	
S.D.	10.24	
N	15	

TABLE 16
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL BODY WEIGHT CHANGES [G]

FEMALES

DAY	22- 23	23- 24	24- 25	25- 26	26- 27	27- 28	28- 29	29- 30	30- 31	31- 32
ANIMALS FROM GROUP 4: TS03017 1000										
30721-01	7.9	1.5	3.2	4.6	4.8	5.5	4.0	6.7	6.0	2.5
30721-14	9.4	-0.7	3.9	6.1	4.9	6.2	7.0	4.2	4.8	8.2
30722-03	5.2	3.6	4.4	5.4	4.9	5.3	6.1	6.1	2.2	8.2
30723-06	3.1	4.8	4.2	4.8	3.7	3.7	3.7	-0.2	5.1	4.0
30724-01	3.7	4.9	5.3	3.9	4.6	5.2	6.0	4.3	6.2	5.8
30725-03	5.2	5.4	5.1	4.2	3.5	9.4	2.3	4.8	4.7	7.0
30725-05	5.2	4.6	5.2	5.1	5.9	5.5	5.7	5.1	5.7	4.7
30725-08	4.4	3.3	7.1	5.1	6.3	5.0	6.2	5.8	4.5	3.1
30726-03	4.6	5.5	7.3	5.7	4.8	5.7	6.7	4.5	4.6	4.5
30728-01	3.8	5.0	6.1	5.8	4.7	6.2	2.1	4.0	5.3	7.0
30730-11	2.9	5.9	3.5	5.1	4.8	6.2	5.0	7.1	6.5	3.5
30731-05	1.8	4.3	3.8	5.0	5.3	3.9	5.7	5.6	6.5	5.7
30731-07	2.2	4.9	4.9	3.1	5.1	3.9	4.8	5.4	5.2	5.6
30733-04	3.0	3.7	5.3	3.2	6.3	5.2	5.8	6.4	2.7	8.1
30733-09	2.6	3.8	4.8	4.1	5.7	5.3	4.1	0.7	5.1	7.1
MEAN	4.3	4.0	4.9	4.7	5.0	5.5	5.0	4.7	5.0	5.7
S.D.	2.08	1.70	1.20	0.90	0.81	1.35	1.50	2.04	1.23	1.90
N	15	15	15	15	15	15	15	15	15	15

TABLE 16
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL BODY WEIGHT CHANGES [G]

FEMALES

DAY	32- 33	33- 34	34- 35	35- 36	36- 37	37- 38	38- 39	39- 40	40- 41	41- 42
ANIMALS FROM GROUP 4: TS03017 1000										
30721-01	6.1	5.6	5.8	6.1	6.4	7.0	5.5	8.2	3.7	5.4
30721-14	4.4	6.8	3.9	4.4	6.3	2.1	6.1	-6.5	9.7	6.1
30722-03	5.1	9.4	4.2	7.1	7.6	5.7	5.4	7.6	2.7	6.1
30723-06	3.2	4.4	3.2	1.7	4.4	0.4	2.4	3.8	2.3	5.1
30724-01	5.3	5.9	1.5	1.5	6.2	3.0	2.3	-6.6	-0.6	7.7
30725-03	1.3	6.0	3.6	7.0	1.3	8.1	4.4	4.7	1.1	0.4
30725-05	6.8	5.9	7.5	5.8	5.3	7.2	-0.3	6.5	1.9	5.1
30725-08	8.2	4.4	5.5	7.7	1.8	7.6	0.2	0.8	6.4	7.2
30726-03	8.0	5.3	8.1	5.3	-2.4	8.7	-15.0	10.2	4.1	6.6
30728-01	6.1	7.9	3.6	5.0	2.7	2.9	4.2	2.6	3.5	7.7
30730-11	9.8	6.1	5.4	5.9	4.7	3.6	5.6	4.5	3.0	1.4
30731-05	6.4	4.6	9.2	4.9	8.7	8.3	0.0	5.3	5.2	2.5
30731-07	4.4	8.0	6.0	1.0	10.0	-2.0	5.4	6.4	5.2	6.0
30733-04	6.8	1.7	5.5	6.9	8.8	-4.2	1.5	4.8	9.0	3.9
30733-09	5.9	4.2	9.1	5.7	6.5	3.5	2.5	7.8	5.8	3.4
MEAN	5.9	5.7	5.5	5.1	5.2	4.1	2.0	4.0	4.2	5.0
S. D.	2.08	1.86	2.24	2.10	3.28	3.92	5.20	4.88	2.79	2.23
N	15	15	15	15	15	15	15	15	15	15

TABLE 16
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL BODY WEIGHT CHANGES [G]

FEMALES

DAY 22- 42

ANIMALS FROM GROUP 4:	TS03017 1000	
30721-01	106.5	SCHED EUTH DAY 42
30721-14	97.3	SCHED EUTH DAY 42
30722-03	112.3	SCHED EUTH DAY 42
30723-06	67.8	SCHED EUTH DAY 42
30724-01	76.1	SCHED EUTH DAY 42
30725-03	89.5	SCHED EUTH DAY 42
30725-05	104.4	SCHED EUTH DAY 42
30725-08	100.6	SCHED EUTH DAY 42
30726-03	92.8	SCHED EUTH DAY 42
30728-01	96.2	SCHED EUTH DAY 42
30730-11	100.5	SCHED EUTH DAY 42
30731-05	102.7	SCHED EUTH DAY 42
30731-07	95.5	SCHED EUTH DAY 42
30733-04	94.4	SCHED EUTH DAY 42
30733-09	97.7	SCHED EUTH DAY 42
MEAN	95.6	
S.D.	11.28	
N	15	

TABLE 16
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL BODY WEIGHT CHANGES [G]

FEMALES

DAY	22- 23	23- 24	24- 25	25- 26	26- 27	27- 28	28- 29	29- 30	30- 31	31- 32
ANIMALS FROM GROUP 5: TS03018 60										
30721-09	4.6	4.1	4.0	5.6	3.7	5.1	3.9	5.1	5.5	9.0
30721-13	3.6	4.9	4.1	5.7	5.0	4.1	3.3	5.2	3.8	5.8
30722-06	3.2	3.3	3.7	4.0	2.4	4.0	4.1	1.6	6.1	4.0
30723-01	4.1	4.2	4.6	4.6	6.0	1.7	4.2	9.8	5.5	6.0
30724-10	4.4	3.8	4.5	5.0	5.7	5.3	4.3	7.4	5.4	5.2
30725-01	3.0	5.3	6.2	5.5	8.2	4.6	3.3	4.3	6.9	4.2
30725-06	2.8	5.3	5.0	4.3	5.8	4.7	6.0	5.9	4.9	5.8
30726-12	3.2	5.0	5.6	4.4	5.4	4.7	6.6	2.4	9.1	4.6
30728-07	3.7	3.8	3.9	3.9	4.5	3.8	2.5	4.8	6.3	4.7
30728-14	2.5	4.8	4.2	3.7	4.7	3.8	5.4	4.5	8.4	3.8
30729-09	5.4	5.2	4.7	6.8	3.2	7.2	6.6	6.2	5.5	9.4
30730-08	4.1	4.7	3.8	5.1	4.3	4.5	5.5	5.9	5.3	4.5
30731-03	6.3	4.0	6.2	2.9	5.7	6.3	4.2	5.4	4.0	7.2
30731-06	4.7	5.9	5.9	3.7	5.1	7.5	1.6	6.4	3.9	6.5
30733-08	4.9	4.6	5.7	4.2	3.7	5.4	5.3	6.6	4.9	5.3
MEAN	4.0	4.6	4.8	4.6	4.9	4.8	4.5	5.4	5.7	5.7
S. D.	1.05	0.71	0.90	1.00	1.39	1.44	1.45	1.94	1.52	1.70
N	15	15	15	15	15	15	15	15	15	15

TABLE 16
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL BODY WEIGHT CHANGES [G]

FEMALES

DAY	32- 33	33- 34	34- 35	35- 36	36- 37	37- 38	38- 39	39- 40	40- 41	41- 42
ANIMALS FROM GROUP 5: TS03018 60										
30721-09	1.1	5.9	4.9	9.8	3.0	0.5	4.9	10.0	1.3	0.7
30721-13	6.2	3.6	3.5	4.4	6.7	2.5	8.0	-0.9	7.0	5.0
30722-06	1.5	4.7	2.6	3.4	8.1	3.7	5.2	5.8	4.7	3.8
30723-01	5.6	7.5	1.5	5.6	6.8	7.0	7.1	5.9	-0.8	7.9
30724-10	5.3	5.9	1.5	7.3	2.4	4.5	8.0	4.8	-0.3	5.6
30725-01	7.0	1.4	8.0	5.6	2.6	5.3	6.6	3.3	-0.8	5.1
30725-06	5.5	6.1	4.3	4.5	5.5	3.8	4.4	4.9	0.8	1.4
30726-12	5.4	1.2	6.6	6.6	2.8	5.8	-2.9	7.3	7.0	-3.2
30728-07	5.2	6.4	4.8	6.1	5.1	3.5	7.1	4.2	3.7	2.9
30728-14	5.9	3.8	6.9	5.4	1.6	3.2	5.9	3.9	1.8	3.1
30729-09	7.2	5.1	6.2	3.2	6.5	8.2	-0.7	5.8	6.4	4.2
30730-08	7.5	2.4	8.2	4.2	9.2	1.2	4.7	2.2	8.1	0.3
30731-03	3.7	6.0	8.0	3.6	3.8	7.3	4.2	-1.4	9.5	7.6
30731-06	4.8	5.1	7.2	5.7	4.4	6.9	4.6	3.3	6.7	4.8
30733-08	5.8	8.3	6.5	6.0	10.2	0.7	1.9	5.8	10.0	1.9
MEAN	5.2	4.9	5.4	5.4	5.2	4.3	4.6	4.3	4.3	3.4
S. D.	1.84	2.08	2.30	1.71	2.63	2.45	3.09	2.90	3.78	2.90
N	15	15	15	15	15	15	15	15	15	15

TABLE 16
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL BODY WEIGHT CHANGES [G]

FEMALES

DAY 22- 42

ANIMALS FROM GROUP 5:	TS03018 60	
30721-09	92.7	SCHED EUTH DAY 42
30721-13	91.5	SCHED EUTH DAY 42
30722-06	79.9	SCHED EUTH DAY 42
30723-01	104.8	SCHED EUTH DAY 42
30724-10	96.0	SCHED EUTH DAY 42
30725-01	95.6	SCHED EUTH DAY 42
30725-06	91.7	SCHED EUTH DAY 42
30726-12	87.6	SCHED EUTH DAY 42
30728-07	90.9	SCHED EUTH DAY 42
30728-14	87.3	SCHED EUTH DAY 42
30729-09	112.3	SCHED EUTH DAY 42
30730-08	95.7	SCHED EUTH DAY 42
30731-03	104.5	SCHED EUTH DAY 42
30731-06	104.7	SCHED EUTH DAY 42
30733-08	107.7	SCHED EUTH DAY 42
MEAN	96.2	
S.D.	8.90	
N	15	

TABLE 16
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL BODY WEIGHT CHANGES [G]

FEMALES

DAY	22- 23	23- 24	24- 25	25- 26	26- 27	27- 28	28- 29	29- 30	30- 31	31- 32
ANIMALS FROM GROUP 6: TS03018 250										
30721-03	3.5	3.8	5.5	4.4	3.5	3.6	5.0	4.4	3.4	4.2
30721-12	4.2	4.0	6.2	6.9	5.2	4.6	5.5	7.0	5.9	6.9
30723-04	3.5	5.6	4.6	6.1	5.2	4.7	5.1	4.6	6.7	6.9
30723-14	5.7	4.1	4.1	5.8	5.0	4.8	4.7	0.5	9.5	5.2
30724-14	4.0	5.1	6.0	4.7	5.4	4.9	4.7	-0.1	12.6	3.6
30725-07	4.5	5.5	5.5	5.2	4.2	7.2	-0.8	13.7	4.8	1.1
30725-09	4.6	4.5	4.8	5.9	4.6	5.3	5.0	5.7	4.9	4.8
30726-02	2.8	4.6	6.8	5.4	4.9	3.6	6.6	6.2	7.7	4.5
30726-06	4.1	5.0	5.3	5.8	8.0	3.3	8.3	2.1	11.1	1.0
30728-12	4.3	3.9	4.3	3.9	3.2	5.9	5.1	6.2	4.9	5.4
30729-03	5.8	5.1	5.6	4.0	6.8	4.5	4.7	6.4	1.4	7.2
30729-05	3.9	5.7	4.2	6.0	5.7	4.5	5.1	7.6	5.6	4.9
30731-08	2.2	6.0	4.4	4.4	3.6	3.7	5.9	5.2	3.3	6.5
30731-11	2.6	5.4	4.7	4.6	3.8	4.9	6.0	3.7	6.1	4.9
30733-03	5.8	5.7	6.3	6.5	4.7	6.2	7.0	3.4	8.4	3.6
MEAN	4.1	4.9	5.2	5.3	4.9	4.8	5.2	5.1	6.4	4.7
S. D.	1.11	0.74	0.85	0.93	1.27	1.06	1.94	3.29	3.02	1.88
N	15	15	15	15	15	15	15	15	15	15

TABLE 16
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL BODY WEIGHT CHANGES [G]

FEMALES

DAY	32- 33	33- 34	34- 35	35- 36	36- 37	37- 38	38- 39	39- 40	40- 41	41- 42
ANIMALS FROM GROUP 6: TS03018 250										
30721-03	2.2	5.1	4.6	3.8	2.7	1.9	3.2	4.7	0.8	3.5
30721-12	3.9	7.3	6.9	3.2	7.5	6.2	2.9	10.3	-2.0	6.1
30723-04	3.2	5.8	1.6	6.9	6.3	3.9	5.7	7.3	2.1	1.6
30723-14	4.5	3.8	6.6	4.2	5.3	4.2	1.6	6.7	3.9	-3.6
30724-14	5.4	6.2	8.3	4.3	6.5	0.8	10.3	3.9	-1.0	4.4
30725-07	7.3	7.1	5.3	8.3	5.4	2.9	10.4	-1.7	11.8	0.8
30725-09	4.1	6.3	4.3	5.2	5.8	1.6	4.3	3.1	1.6	6.1
30726-02	7.1	4.6	4.2	6.7	3.9	6.2	2.5	6.5	0.3	3.1
30726-06	6.9	8.4	4.9	5.6	4.2	1.8	10.3	0.6	1.4	1.7
30728-12	6.0	3.5	6.3	6.6	1.8	2.1	10.5	2.4	2.5	10.2
30729-03	4.7	4.0	4.7	8.3	2.7	0.2	0.1	8.5	3.6	3.1
30729-05	6.8	4.5	9.2	6.2	2.5	8.6	3.5	6.0	4.0	6.0
30731-08	6.4	4.3	5.0	6.7	4.5	5.7	4.2	4.6	5.3	3.3
30731-11	5.1	5.6	8.1	4.3	5.1	4.9	2.4	8.7	1.7	2.2
30733-03	7.4	1.8	4.9	5.8	0.8	8.6	-0.1	3.2	4.8	5.2
MEAN	5.4	5.2	5.7	5.7	4.3	4.0	4.8	5.0	2.7	3.6
S. D.	1.61	1.70	1.94	1.57	1.91	2.68	3.79	3.22	3.24	3.10
N	15	15	15	15	15	15	15	15	15	15

TABLE 16
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL BODY WEIGHT CHANGES [G]

FEMALES

DAY 22- 42

ANIMALS FROM GROUP 6: TS03018 250

30721-03	73.8	SCHED EUTH DAY 42
30721-12	108.7	SCHED EUTH DAY 42
30723-04	97.4	SCHED EUTH DAY 42
30723-14	86.6	SCHED EUTH DAY 42
30724-14	100.0	SCHED EUTH DAY 42
30725-07	108.5	SCHED EUTH DAY 42
30725-09	92.5	SCHED EUTH DAY 42
30726-02	98.2	SCHED EUTH DAY 42
30726-06	99.8	SCHED EUTH DAY 42
30728-12	99.0	SCHED EUTH DAY 42
30729-03	91.4	SCHED EUTH DAY 42
30729-05	110.5	SCHED EUTH DAY 42
30731-08	95.2	SCHED EUTH DAY 42
30731-11	94.8	SCHED EUTH DAY 42
30733-03	100.0	SCHED EUTH DAY 42
MEAN	97.1	
S.D.	9.21	
N	15	

TABLE 16
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL BODY WEIGHT CHANGES [G]

FEMALES

DAY	22- 23	23- 24	24- 25	25- 26	26- 27	27- 28	28- 29	29- 30	30- 31	31- 32
ANIMALS FROM GROUP 7: TS03018 1000										
30721-07	5.7	1.8	4.3	5.6	5.2	4.7	4.7	7.4	4.9	8.4
30723-02	4.4	-0.4	-0.7	2.4	5.9	5.4	3.5	5.5	3.8	5.2
30724-03	3.6	2.9	1.2	3.3	5.0	3.6	4.2	5.8	5.1	5.1
30724-11	2.4	0.1	5.7	4.9	2.7	6.0	3.5	4.9	5.3	5.9
30724-12	2.7	3.6	2.8	6.1	2.9	6.1	3.5	5.3	3.4	7.0
30725-11	-4.1	NA	DIED DAY 24							
30726-09	1.8	5.4	6.0	5.9	5.7	6.3	7.8	4.2	8.6	4.3
30726-10	3.3	3.9	5.2	3.4	6.7	2.2	4.4	4.5	6.2	7.3
30726-14	1.6	-0.8	3.0	8.3	3.0	0.5	7.5	1.6	6.7	2.5
30728-04	1.8	-1.2	-0.1	5.6	4.3	4.0	3.8	5.3	5.7	4.8
30730-01	1.4	1.0	5.8	3.9	4.1	5.7	5.4	4.5	5.3	3.9
30730-07	0.1	3.5	1.2	6.7	1.5	4.1	7.6	4.3	7.7	2.7
30731-02	-2.1	-0.7	DIED DAY 24							
30733-05	3.3	3.5	4.9	6.6	1.3	3.3	4.5	8.7	2.2	3.3
30733-10	-1.5	2.2	2.4	7.0	6.2	4.1	4.5	7.6	1.5	6.9
MEAN	1.6	1.8	3.2	5.4	4.2	4.3	5.0	5.4	5.1	5.2
S.D.	2.60	2.11	2.31	1.70	1.78	1.68	1.60	1.80	2.03	1.85
N	15	14	13	13	13	13	13	13	13	13

NA = NOT APPLICABLE

TABLE 16
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL BODY WEIGHT CHANGES [G]

FEMALES

DAY	32- 33	33- 34	34- 35	35- 36	36- 37	37- 38	38- 39	39- 40	40- 41	41- 42
ANIMALS FROM GROUP 7: TS03018 1000										
30721-07	5.9	3.7	4.1	8.6	5.1	6.0	6.2	3.2	1.2	7.6
30723-02	2.3	4.6	3.5	8.1	2.4	7.1	1.9	9.2	1.2	1.8
30724-03	5.2	4.2	4.4	6.6	4.2	6.9	4.2	10.1	1.0	3.7
30724-11	3.7	7.0	3.6	3.6	7.4	4.1	2.2	5.9	3.6	5.2
30724-12	5.0	6.2	5.4	4.9	0.7	8.9	3.8	7.0	-0.1	5.4
30726-09	10.6	4.7	2.4	11.6	6.7	4.5	4.3	7.0	1.5	1.2
30726-10	4.9	3.4	5.5	8.9	3.0	3.5	5.3	3.3	4.7	1.9
30726-14	8.4	3.8	4.5	6.1	2.2	7.2	0.3	6.9	2.1	1.8
30728-04	4.7	6.0	5.8	6.6	3.7	5.9	4.8	1.8	7.0	1.1
30730-01	4.7	5.3	4.9	2.8	5.4	5.7	1.6	5.1	1.5	4.4
30730-07	6.2	3.8	7.6	3.9	9.0	1.7	4.7	7.2	3.8	3.7
30733-05	7.5	3.8	8.9	2.2	5.6	8.2	4.3	3.3	4.2	7.3
30733-10	5.3	7.1	3.7	6.6	3.3	7.5	5.8	5.3	5.1	3.8
MEAN	5.7	4.9	4.9	6.2	4.5	5.9	3.8	5.8	2.8	3.8
S. D.	2.12	1.30	1.76	2.70	2.32	2.03	1.77	2.45	2.06	2.18
N	13	13	13	13	13	13	13	13	13	13

TABLE 16
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL BODY WEIGHT CHANGES [G]

FEMALES

DAY 22- 42

ANIMALS FROM GROUP 7:	TS03018 1000	
30721-07	104.3	SCHED EUTH DAY 42
30723-02	77.1	SCHED EUTH DAY 42
30724-03	90.3	SCHED EUTH DAY 42
30724-11	87.7	SCHED EUTH DAY 42
30724-12	90.6	SCHED EUTH DAY 42
30726-09	110.5	SCHED EUTH DAY 42
30726-10	91.5	SCHED EUTH DAY 42
30726-14	77.2	SCHED EUTH DAY 42
30728-04	81.4	SCHED EUTH DAY 42
30730-01	82.4	SCHED EUTH DAY 42
30730-07	91.0	SCHED EUTH DAY 42
30733-05	96.9	SCHED EUTH DAY 42
30733-10	94.4	SCHED EUTH DAY 42
MEAN	90.4	
S.D.	9.83	
N	13	

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R: 08/11/2003

TABLE 17
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL ANIMAL DEVELOPMENTAL PARAMETERS - VAGINAL PATENCY

GROUP: CORN OIL SEX: FEMALES

ANIMAL	DAY OF RESPONSE	WEIGHT GRAMS	PND===> 27	28	29	30	31	32	33	34	35	36	37
30721-05	36	112.1	N	N	N	N	N	N	N	N	N	Y	
30722-01	35	97.5	N	N	N	N	N	N	N	N	Y		
30723-03	35	105.8	N	N	N	N	N	N	N	N	Y		
30723-11	32	95.6	N	N	N	N	N	Y					
30723-12	35	96.5	N	N	N	N	N	N	N	N	Y		
30725-02	31	103.0	N	N	N	N	Y						
30725-13	35	104.7	N	N	N	N	N	N	N	N	Y		
30726-05	36	132.4	N	N	N	N	N	N	N	N	N	Y	
30727-09	37	103.5	N	N	N	N	N	N	N	N	N	N	Y
30728-06	34	114.6	N	N	N	N	N	N	N	Y			
30731-04	35	90.2	N	N	N	N	N	N	N	N	Y		
30731-10	35	99.8	N	N	N	N	N	N	N	N	Y		
30733-02	33	105.1	N	N	N	N	N	N	Y				
30733-12	35	124.6	N	N	N	N	N	N	N	N	Y		
30733-13	33	102.5	N	N	N	N	N	N	Y				
MEAN	34.5	105.9											
S.D.	1.60	11.16											
N	15	15											

N = NEGATIVE RESPONSE, Y = POSITIVE RESPONSE
PND= POSTNATAL DAY

TABLE 17
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL ANIMAL DEVELOPMENTAL PARAMETERS - VAGINAL PATENCY

GROUP: TS03017 60 SEX: FEMALES

ANIMAL	DAY OF RESPONSE	WEIGHT GRAMS	PND===> 27	28	29	30	31	32	33	34	35	36	37
30721-02	34	108.7	N	N	N	N	N	N	N	Y			
30721-11	37	113.0	N	N	N	N	N	N	N	N	N	N	Y
30722-04	35	106.5	N	N	N	N	N	N	N	N	Y		
30723-05	30	76.8	N	N	N	Y							
30724-09	35	105.2	N	N	N	N	N	N	N	N	Y		
30725-04	32	97.5	N	N	N	N	N	Y					
30726-01	30	92.8	N	N	N	Y							
30726-07	31	106.0	N	N	N	N	Y						
30726-08	33	102.0	N	N	N	N	N	N	Y				
30728-05	35	123.7	N	N	N	N	N	N	N	N	Y		
30729-08	35	114.3	N	N	N	N	N	N	N	N	Y		
30730-04	37	117.0	N	N	N	N	N	N	N	N	N	N	Y
30730-12	30	98.8	N	N	N	Y							
30731-12	33	99.9	N	N	N	N	N	N	Y				
30733-01	33	103.9	N	N	N	N	N	N	Y				
MEAN	33.3	104.4											
S.D.	2.38	11.12											
N	15	15											

N = NEGATIVE RESPONSE, Y = POSITIVE RESPONSE
PND= POSTNATAL DAY

TABLE 17
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL ANIMAL DEVELOPMENTAL PARAMETERS - VAGINAL PATENCY

GROUP: TS03017 250 SEX: FEMALES

ANIMAL	DAY OF RESPONSE	WEIGHT GRAMS	PND===> 27	28	29	30	31	32	33	34	35	36	37
30721-04	30	83.7	N	N	N	Y							
30721-08	29	76.7	N	N	Y								
30723-07	33	95.5	N	N	N	N	N	N	Y				
30723-08	30	77.0	N	N	N	Y							
30723-09	34	97.1	N	N	N	N	N	N	N	Y			
30725-10	31	99.9	N	N	N	N	Y						
30725-12	30	89.7	N	N	N	Y							
30726-13	34	106.7	N	N	N	N	N	N	N	Y			
30728-11	34	101.2	N	N	N	N	N	N	N	Y			
30728-13	33	104.5	N	N	N	N	N	N	Y				
30730-10	32	102.6	N	N	N	N	N	Y					
30731-01	33	91.5	N	N	N	N	N	N	Y				
30731-09	33	100.3	N	N	N	N	N	N	Y				
30733-06	33	107.9	N	N	N	N	N	N	Y				
30733-07	33	105.4	N	N	N	N	N	N	Y				
MEAN	32.1	96.0											
S.D.	1.68	10.24											
N	15	15											

N = NEGATIVE RESPONSE, Y = POSITIVE RESPONSE
PND= POSTNATAL DAY

TABLE 17
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL ANIMAL DEVELOPMENTAL PARAMETERS - VAGINAL PATENCY

GROUP: TS03017 1000 SEX: FEMALES

ANIMAL	DAY OF RESPONSE	WEIGHT GRAMS	PND===> 27	28	29	30	31	32	33	34	35	36	37
30721-01	27	69.9	Y										
30721-14	28	73.9	N	Y									
30722-03	29	77.6	N	N	Y								
30723-06	29	69.4	N	N	Y								
30724-01	29	81.4	N	N	Y								
30725-03	28	78.7	N	Y									
30725-05	27	73.2	Y										
30725-08	28	83.3	N	Y									
30726-03	28	89.5	N	Y									
30728-01	28	85.5	N	Y									
30730-11	27	70.5	Y										
30731-05	27	57.4	Y										
30731-07	27	61.5	Y										
30733-04	27	76.3	Y										
30733-09	27	71.2	Y										
MEAN	27.7	74.6											
S.D.	0.80	8.61											
N	15	15											

N = NEGATIVE RESPONSE, Y = POSITIVE RESPONSE
PND= POSTNATAL DAY

TABLE 17
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL ANIMAL DEVELOPMENTAL PARAMETERS - VAGINAL PATENCY

GROUP: TS03018 60 SEX: FEMALES

ANIMAL	DAY OF RESPONSE	WEIGHT GRAMS	PND===> 27	28	29	30	31	32	33	34	35	36	37
30721-09	29	73.4	N	N	Y								
30721-13	29	75.9	N	N	Y								
30722-06	29	65.0	N	N	Y								
30723-01	29	75.9	N	N	Y								
30724-10	29	78.6	N	N	Y								
30725-01	28	78.4	N	Y									
30725-06	28	77.8	N	Y									
30726-12	27	74.0	Y										
30728-07	28	73.9	N	Y									
30728-14	28	75.2	N	Y									
30729-09	27	77.9	Y										
30730-08	30	86.2	N	N	N	Y							
30731-03	30	83.4	N	N	N	Y							
30731-06	27	64.0	Y										
30733-08	27	72.0	Y										
MEAN	28.3	75.4											
S.D.	1.05	5.80											
N	15	15											

N = NEGATIVE RESPONSE, Y = POSITIVE RESPONSE
PND= POSTNATAL DAY

TABLE 17
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL ANIMAL DEVELOPMENTAL PARAMETERS - VAGINAL PATENCY

GROUP: TS03018 250 SEX: FEMALES

ANIMAL	DAY OF RESPONSE	WEIGHT GRAMS	PND===> 27	28	29	30	31	32	33	34	35	36	37
30721-03	29	74.3	N	N	Y								
30721-12	28	76.4	N	Y									
30723-04	29	82.0	N	N	Y								
30723-14	29	77.1	N	N	Y								
30724-14	28	77.6	N	Y									
30725-07	28	82.9	N	Y									
30725-09	28	74.5	N	Y									
30726-02	28	73.5	N	Y									
30726-06	28	87.5	N	Y									
30728-12	28	74.0	N	Y									
30729-03	27	77.5	Y										
30729-05	27	74.0	Y										
30731-08	27	55.3	Y										
30731-11	27	58.3	Y										
30733-03	27	83.1	Y										
MEAN	27.9	75.2											
S.D.	0.74	8.55											
N	15	15											

N = NEGATIVE RESPONSE, Y = POSITIVE RESPONSE
PND= POSTNATAL DAY

TABLE 17
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL ANIMAL DEVELOPMENTAL PARAMETERS - VAGINAL PATENCY

GROUP: TS03018 1000 SEX: FEMALES

ANIMAL	DAY OF RESPONSE	WEIGHT GRAMS	PND===> 27	28	29	30	31	32	33	34	35	36	37
30721-07	29	76.9	N	N	Y								
30723-02	28	60.3	N	Y									
30724-03	27	63.1	Y										
30724-11	28	62.7	N	Y									
30724-12	28	72.5	N	Y									
30726-09	28	81.0	N	Y									
30726-10	27	73.7	Y										
30726-14	28	61.9	N	Y									
30728-04	28	68.4	N	Y									
30730-01	27	65.5	Y										
30730-07	27	66.4	Y										
30731-02	LAST DAY OF TEST		25										
30733-05	27	61.4	Y										
30733-10	27	62.9	Y										
MEAN	27.6	67.4											
S.D.	0.65	6.61											
N	13	13											

N = NEGATIVE RESPONSE, Y = POSITIVE RESPONSE
PND= POSTNATAL DAY

PJTBBv1.03
08/07/2003
R: 08/22/2003

TABLE 18
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL ESTROUS CYCLE DATA

FEMALES FROM GROUP 1: CORN OIL

FEMALE NUMBER	DETERMINATION DAY: 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	INDIVIDUAL MEAN LENGTH OF ESTROUS CYCLE (DAYS)
30721-05	N	N	N	N	N	N	N	N	N	E	D	D	D	D	E	D			5.0
30722-01	N	N	N	N	N	N	N	N	D	D	D	E	E	M	D	D			A
30723-03	N	N	N	N	N	N	N	N	D	D	D	D	E	M	D	D			A
30723-11	N	N	N	N	N	P	D	D	D	E	D	D	P	E	E	D			4.5
30723-12	N	N	N	N	N	N	N	N	E	M	D	D	D	P	E	D			6.0
30725-02	N	N	N	N	N	E	D	D	D	D	E	D	D	D	E	E	D		5.0
30725-13	N	N	N	N	N	N	N	N	N	D	D	D	P	E	D	D	D		A
30726-05	N	N	N	N	N	N	N	N	N	N	D	D	P	E	M	D	D		A
30727-09	N	N	N	N	N	N	N	N	N	N	N	E	D	D	D	P	E		A
30728-06	N	N	N	N	N	N	N	N	D	D	D	P	E	D	D	D	P		A
30731-04	N	N	N	N	N	N	N	N	N	N	E	D	D	D	P	E	D	D	5.0
30731-10	N	N	N	N	N	N	N	N	N	N	D	D	D	D	D	D	D	P	A
30733-02	N	N	N	N	N	N	N	N	D	D	D	D	E	M	D	D	P	M	4.0
30733-12	N	N	N	N	N	N	N	N	D	N	E	D	D	D	D	D	D	D	A
30733-13	N	N	N	N	N	N	N	N	D	D	D	E	E	D	D	D	E	M	4.0

MEAN	4.8
S.D.	0.70
N	7

ESTROUS STAGE CODE: E = ESTRUS, D = DIESTRUS, M = METESTRUS, P = PROESTRUS
A = UNABLE TO DETERMINE LENGTH OF ESTROUS CYCLE
N = NOT ENTERED

TABLE 18
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL ESTROUS CYCLE DATA

FEMALES FROM GROUP 2: TS03017 60

FEMALE NUMBER	DETERMINATION DAY: 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	INDIVIDUAL MEAN LENGTH OF ESTROUS CYCLE (DAYS)
30721-02	N	N	N	N	N	N	N	M	D	D	D	E	D	D	D	E			A
30721-11	N	N	N	N	N	N	N	N	N	N	E	D	D	D	D	D			A
30722-04	N	N	N	N	N	N	N	N	E	D	D	D	D	D	D	D			A
30723-05	N	N	N	P	D	D	D	P	E	D	D	D	P	E	D	D			5.0
30724-09	N	N	N	N	N	N	N	N	E	D	D	D	P	D	D	D			4.0
30725-04	N	N	N	N	N	N	D	D	D	E	E	D	D	D	E	E	D		5.0
30726-01	N	N	N	N	E	D	D	D	P	E	D	D	D	P	E	D	D		5.0
30726-07	N	N	N	N	N	P	M	D	D	P	E	D	D	D	P	E	D		5.0
30726-08	N	N	N	N	N	N	N	E	D	D	D	D	D	D	D	D	D		A
30728-05	N	N	N	N	N	N	N	N	N	E	D	D	D	P	E	D	D		5.0
30729-08	N	N	N	N	N	N	N	N	N	N	E	D	D	D	P	E	M	D	5.0
30730-04	N	N	N	N	N	N	N	N	N	N	N	N	E	D	D	D	P	E	A
30730-12	N	N	N	N	N	M	D	D	D	E	M	D	D	D	E	M	D	D	5.0
30731-12	N	N	N	N	N	N	N	N	D	E	D	D	D	E	E	D	D	D	5.0
30733-01	N	N	N	N	N	N	N	N	D	D	P	E	D	D	D	E	E	D	5.0
																		MEAN	4.9
																		S.D.	0.32
																		N	10

ESTROUS STAGE CODE: E = ESTRUS, D = DIESTRUS, M = METESTRUS, P = PROESTRUS
A = UNABLE TO DETERMINE LENGTH OF ESTROUS CYCLE
N = NOT ENTERED

TABLE 18
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL ESTROUS CYCLE DATA

FEMALES FROM GROUP 3: TS03017 250

FEMALE NUMBER	DETERMINATION DAY: 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	INDIVIDUAL MEAN LENGTH OF ESTROUS CYCLE (DAYS)
30721-04	N	N	N	D	D	D	E	D	D	D	P	E	D	D	D	E			5.0
30721-08	N	N	D	N	P	E	D	D	D	P	E	D	D	D	E	D			4.5
30723-07	N	N	N	N	N	N	D	D	D	P	E	D	D	D	E	D			4.0
30723-08	N	N	N	D	D	P	E	D	D	D	D	E	D	D	D	P			5.0
30723-09	N	N	N	N	N	N	N	D	P	E	D	D	D	D	P	E			A
30725-10	N	N	N	N	N	P	E	D	D	D	E	E	D	D	D	P	E		5.0
30725-12	N	N	N	N	E	D	D	D	D	D	E	M	D	D	D	D	E		6.0
30726-13	N	N	N	N	N	N	N	N	D	D	D	D	E	D	D	D	P		A
30728-11	N	N	N	N	N	N	N	N	D	D	D	P	E	D	D	D	E		A
30728-13	N	N	N	N	N	N	N	E	E	D	D	D	P	E	M	D	D		5.0
30730-10	N	N	N	N	N	N	N	D	D	D	D	E	M	D	D	D	P	E	A
30731-01	N	N	N	N	N	N	N	N	P	E	D	D	D	P	E	D	D	P	5.0
30731-09	N	N	N	N	N	N	N	N	D	E	E	D	D	D	D	E	E	M	6.0
30733-06	N	N	N	N	N	N	N	N	D	P	E	D	D	D	D	E	E	D	6.0
30733-07	N	N	N	N	N	N	N	N	D	D	D	E	D	D	D	D	E	D	5.0
MEAN																			5.1
S.D.																			0.64
N																			11

ESTROUS STAGE CODE: E = ESTRUS, D = DIESTRUS, M = METESTRUS, P = PROESTRUS
A = UNABLE TO DETERMINE LENGTH OF ESTROUS CYCLE
N = NOT ENTERED

TABLE 18
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL ESTROUS CYCLE DATA

FEMALES FROM GROUP 4: TS03017 1000

FEMALE NUMBER	DETERMINATION DAY: 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	INDIVIDUAL MEAN LENGTH OF ESTROUS CYCLE (DAYS)
30721-01	D	D	D	P	P	D	D	D	D	D	D	P	E	D	D	D			8.0
30721-14	N	M	D	D	D	D	P	E	M	D	D	P	E	M	D	D			5.0
30722-03	N	N	D	M	D	D	P	E	D	D	D	D	E	E	D	D			6.0
30723-06	N	N	D	D	D	E	D	D	D	D	D	D	E	D	D	D			7.0
30724-01	N	N	D	P	E	D	D	D	E	E	D	D	D	P	E	D			5.0
30725-03	N	N	D	E	E	D	D	D	D	D	E	M	D	D	D	D	E		6.0
30725-05	N	P	E	M	M	E	E	D	D	D	D	D	D	D	D	E	E		4.0
30725-08	N	N	E	M	M	D	D	D	P	M	D	D	D	P	E	D	D		6.0
30726-03	N	N	E	E	E	E	E	D	D	D	D	P	E	D	D	D	D		6.0
30728-01	N	N	D	D	P	D	E	E	M	D	D	P	E	E	D	D	D		4.5
30730-11	N	N	D	D	P	M	E	E	E	M	D	D	E	D	D	D	E	E	4.0
30731-05	N	N	E	P	M	M	D	P	D	D	D	E	E	D	D	D	E	E	4.5
30731-07	N	N	D	M	D	D	D	M	D	D	D	D	D	D	P	M	M	E	A
30733-04	N	N	E	E	E	D	D	D	D	P	E	D	D	D	P	E	D	D	5.5
30733-09	N	N	D	D	P	M	P	E	M	P	D	P	E	D	D	D	P	E	2.7
																		MEAN	5.3
																		S.D.	1.36
																		N	14

ESTROUS STAGE CODE: E = ESTRUS, D = DIESTRUS, M = METESTRUS, P = PROESTRUS
A = UNABLE TO DETERMINE LENGTH OF ESTROUS CYCLE
N = NOT ENTERED

TABLE 18
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL ESTROUS CYCLE DATA

FEMALES FROM GROUP 5: TS03018 60

FEMALE NUMBER	DETERMINATION DAY: 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	INDIVIDUAL MEAN LENGTH OF ESTROUS CYCLE (DAYS)
30721-09	N	N	D	D	D	P	E	D	D	D	P	E	D	D	D	P			5.0
30721-13	N	N	D	D	D	D	P	E	D	D	D	D	P	E	D	D			6.0
30722-06	N	N	D	D	D	D	D	D	D	D	D	D	P	E	D	D			A
30723-01	N	N	D	D	D	D	E	D	D	D	D	D	P	D	D	D			6.0
30724-10	N	N	P	D	P	E	D	D	D	P	E	D	D	D	P	E			4.0
30725-01	N	N	D	D	D	D	D	D	D	P	E	E	D	D	D	D	E		A
30725-06	N	N	D	D	P	E	D	D	D	D	E	M	D	D	D	P	M		5.0
30726-12	N	D	D	D	D	P	E	E	D	D	D	D	P	M	D	D	D		5.0
30728-07	N	N	D	D	D	D	D	D	E	D	D	D	P	E	D	D	D		5.0
30728-14	N	N	D	D	D	P	E	D	D	D	P	E	D	D	D	E	M		4.5
30729-09	N	N	D	D	D	D	D	D	P	E	D	D	D	P	E	D	D	D	5.0
30730-08	N	N	N	N	N	D	P	E	D	D	D	D	P	E	D	D	D	P	6.0
30731-03	N	N	N	N	N	D	D	D	D	E	E	D	D	D	P	E	D	D	5.0
30731-06	N	N	D	D	D	D	D	D	D	D	D	D	D	D	E	D	D	D	A
30733-08	N	N	E	D	D	D	D	D	E	E	D	D	D	P	E	D	D	D	6.0
																		MEAN	5.2
																		S.D.	0.66
																		N	12

ESTROUS STAGE CODE: E = ESTRUS, D = DIESTRUS, M = METESTRUS, P = PROESTRUS
A = UNABLE TO DETERMINE LENGTH OF ESTROUS CYCLE
N = NOT ENTERED

TABLE 18
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL ESTROUS CYCLE DATA

FEMALES FROM GROUP 6: TS03018 250

FEMALE NUMBER	DETERMINATION DAY: 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	INDIVIDUAL MEAN LENGTH OF ESTROUS CYCLE (DAYS)
30721-03	N	N	D	D	D	D	P	D	D	D	D	D	P	D	D	D			6.0
30721-12	N	M	M	E	M	M	D	M	E	E	D	D	D	D	E	D			5.5
30723-04	N	N	D	D	D	D	P	M	M	D	D	D	D	D	P	M			8.0
30723-14	N	N	P	M	E	D	D	D	D	P	E	D	D	D	D	P			4.0
30724-14	N	D	M	M	D	D	P	E	E	M	M	M	D	D	M	M			A
30725-07	N	N	M	D	D	P	E	D	D	D	D	D	D	D	E	D	D		8.0
30725-09	N	N	D	D	D	P	E	E	M	D	D	P	E	D	D	D	D		5.0
30726-02	N	N	M	D	D	P	M	D	M	M	D	D	D	P	D	D	D		8.0
30726-06	N	N	D	D	E	M	D	D	D	D	E	D	D	D	D	D	E		6.0
30728-12	N	N	D	D	D	D	P	D	D	D	D	D	E	D	D	D	D		6.0
30729-03	N	N	P	M	D	D	P	M	E	M	E	E	M	N	M	D	D	P	3.0
30729-05	N	N	P	D	D	D	D	D	D	P	E	E	E	E	E	E	E	E	A
30731-08	N	N	M	D	D	D	M	P	M	M	D	D	D	P	D	M	D	D	6.0
30731-11	N	N	M	M	D	D	D	D	M	M	D	D	D	D	M	E	E	E	A
30733-03	N	N	D	M	D	D	D	D	E	M	D	D	D	D	D	D	D	D	A

MEAN	6.0
S.D.	1.62
N	11

ESTROUS STAGE CODE: E = ESTRUS, D = DIESTRUS, M = METESTRUS, P = PROESTRUS
A = UNABLE TO DETERMINE LENGTH OF ESTROUS CYCLE
N = NOT ENTERED

TABLE 18
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL ESTROUS CYCLE DATA

FEMALES FROM GROUP 7: TS03018 1000

FEMALE NUMBER	DETERMINATION DAY: 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	INDIVIDUAL MEAN LENGTH OF ESTROUS CYCLE (DAYS)
30721-07	N	N	E	E	D	M	E	E	D	E	E	M	M	E	M	M			3.3
30723-02	N	E	M	E	M	E	E	E	E	M	M	E	D	D	D	P			3.3
30724-03	D	E	M	M	D	D	D	P	D	D	E	M	D	E	D	D			4.0
30724-11	N	E	M	E	M	E	E	E	E	E	M	M	E	E	E	E			4.0
30724-12	N	D	D	D	D	D	P	D	D	M	D	D	E	D	D	D			6.0
30725-11																			A
30726-09	N	N	M	E	M	D	P	P	M	M	D	M	E	E	D	P	M		4.0
30726-10	N	M	M	M	M	D	M	M	D	E	E	E	E	M	E	E	E		A
30726-14	N	N	M	E	M	M	M	M	M	E	D	P	E	E	E	M	M		5.5
30728-04	N	N	D	P	M	M	D	E	E	M	E	D	D	M	D	D	D		3.5
30730-01	N	N	E	M	E	E	E	M	E	M	M	E	E	M	E	E	M	D	3.3
30730-07	N	N	M	E	E	M	E	E	E	M	D	P	E	M	E	E	M	M	3.7
30731-02																			A
30733-05	N	N	E	D	D	D	D	D	D	P	D	D	D	D	E	D	D	D	6.0
30733-10	N	N	M	E	E	E	E	D	E	M	D	E	E	E	D	E	E	E	3.5
																		MEAN	4.2
																		S.D.	1.04
																		N	12

ESTROUS STAGE CODE: E = ESTRUS, D = DIESTRUS, M = METESTRUS, P = PROESTRUS
A = UNABLE TO DETERMINE LENGTH OF ESTROUS CYCLE
N = NOT ENTERED

PCYCv5.06
09/10/2003
R: 09/11/2003

TABLE 19 (UNSCHEDULED DEATHS)
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL MACROSCOPIC FINDINGS

ANIMAL NO. 30725-11 GROUP 7: TS03018 1000 FEMALE FOUND DEAD 07/11/03 DATE OF DEATH: 07/11/03 STUDY DAY: 3

					GRADE
NO SIGNIFICANT CHANGES OBSERVED	GROSS:	ADRENAL GLANDS	BRAIN	ESOPHAGUS	EYES
		HEART	INTESTINE	KIDNEYS	LIVER
		LYMPH NODE, MES	LUNGS	MAMMARY GLAND	OVIDUCTS
		OVARIES	PANCREAS	PITUITARY	SPINAL CORD
		SAL. GLAND MAND	SKIN	SPLEEN	STOMACH
		THYMUS	THYROID GLANDS	TRACHEA	URINARY BLADDER
		UTERUS	CERVIX	VAGINA	

GROSS GRADE CODE: 1-SLIGHT, 2-MODERATE, 3-MARKED, P-PRESENT

ANIMAL NO. 30731-02 GROUP 7: TS03018 1000 FEMALE FOUND DEAD 07/12/03 DATE OF DEATH: 07/12/03 STUDY DAY: 4

		GRADE
SKIN	GROSS: MATTING, YELLOW	P
	UROGENITAL	
NO SIGNIFICANT CHANGES OBSERVED	GROSS: ADRENAL GLANDS, BRAIN, ESOPHAGUS, EYES, HEART, INTESTINE, KIDNEYS, LIVER, LYMPH NODE, MES, LUNGS, MAMMARY GLAND, OVIDUCTS, OVARIES, PANCREAS, PITUITARY, SPINAL CORD, SAL. GLAND MAND, SPLEEN, STOMACH, THYMUS, THYROID GLANDS, TRACHEA, URINARY BLADDER, UTERUS, CERVIX, VAGINA	

GROSS GRADE CODE: 1-SLIGHT, 2-MODERATE, 3-MARKED, P-PRESENT

PGRHv4.41
08/07/2003

TABLE 20
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL ORGAN WEIGHTS, LUMINAL FLUID WEIGHTS AND FINAL BODY WEIGHTS [G]

FEMALE GROUP: CORN OIL

ANIMAL	FBW(G)	UTERUS - WET	UTERUS BLOT.	LUMINAL FLUID	ADRENAL GLANDS	PITU ITARY	LIVER	OVARIES/ OVIDUCTS	OVARIES-A
30721-05	141.	0.1963	0.1819	0.0144	0.0328	0.0084	7.6570	NA	0.0507
30722-01	119.	0.3686	0.3427	0.0259	0.0253	0.0062	6.1210	NA	0.0408
30723-03	137.	0.3245	0.3055	0.0190	0.0140	0.0077	7.9122	NA	0.0359
30723-11	145.	0.2920	0.2623	0.0297	0.0315	0.0096	7.4945	NA	0.0703
30723-12	120.	0.2078	0.1865	0.0213	0.0199	0.0066	5.7794	NA	0.0437
30725-02	157.	0.2812	0.2584	0.0228	0.0431	0.0094	8.5107	0.0834	NA
30725-13	134.	0.4613	0.3523	0.1090	0.0387	0.0070	5.6647	0.0867	NA
30726-05	157.	0.2648	0.2347	0.0301	0.0343	0.0076	7.4385	0.0601	NA
30727-09	116.	0.2426	0.2173	0.0253	0.0359	0.0064	4.8983	0.0747	NA
30728-06	154.	0.5610	0.4217	0.1393	0.0396	0.0081	7.6640	0.0958	NA
30731-04	120.	0.1928	0.1551	0.0377	0.0272	0.0074	5.9328	NA	0.0494
30731-10	132.	0.3191	0.2876	0.0315	0.0350	0.0078	6.8799	0.1133	NA
30733-02	142.	0.3374	0.3113	0.0216	0.0362	0.0096	7.2277	0.0699	NA
30733-12	162.	0.2103	0.1927	0.0176	0.0366	0.0089	8.0127	0.0956	NA
30733-13	149.	0.2431	0.2221	0.0210	0.0319	0.0075	6.4758	0.0809	NA
MEAN	139.	0.3002	0.2621	0.0380	0.0321	0.0079	6.9113	0.0845	0.0485
S.D.	15.3	0.10288	0.07457	0.03592	0.00771	0.00112	1.04450	0.01583	0.01202
N	15	15	15	15	15	15	15	9	6

FBW = FINAL BODY WEIGHT
NA = NOT APPLICABLE
A = INADVERTENTLY WEIGHED WITHOUT OVIDUCTS

TABLE 20

PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS

INDIVIDUAL ORGAN WEIGHTS, LUMINAL FLUID WEIGHTS AND FINAL BODY WEIGHTS [G]

FEMALE GROUP: TS03017 60

ANIMAL	FBW(G)	UTERUS - WET	UTERUS BLOT.	LUMINAL FLUID	ADRENAL GLANDS	PITU ITARY	LIVER	OVARIES/ OVIDUCTS	OVARIES-A
30721-02	139.	0.6718	0.4437	0.2281	0.0380	0.0073	7.3992	NA	0.0474
30721-11	141.	0.2144	0.2019	0.0125	0.0317	0.0046	6.5216	NA	0.0558
30722-04	147.	0.1874	0.1682	0.0192	0.0277	0.0065	8.9240	NA	0.0475
30723-05	130.	0.1873	0.1544	0.0329	0.0325	0.0067	6.7255	NA	0.0564
30724-09	139.	0.2606	0.2303	0.0303	0.0310	0.0065	6.5293	NA	0.0529
30725-04	148.	0.2908	0.2509	0.0399	0.0503	0.0092	8.3129	0.0989	NA
30726-01	150.	0.3242	0.2982	0.0260	0.0467	0.0096	7.9552	0.0899	NA
30726-07	161.	0.2682	0.2423	0.0259	0.0372	0.0093	7.2629	0.0858	NA
30726-08	157.	0.2082	0.1903	0.0179	0.0417	0.0089	8.2108	0.0758	NA
30728-05	156.	0.2879	0.2596	0.0283	0.0359	0.0091	8.2591	0.0794	NA
30729-08	150.	0.2457	0.2232	0.0225	0.0356	0.0083	7.1835	0.0822	NA
30730-04	137.	0.8051	0.1975	0.6076	0.0296	0.0082	6.7903	0.0541	NA
30730-12	158.	0.3878	0.3533	0.0345	0.0437	0.0108	7.9063	0.1179	NA
30731-12	156.	0.4979	0.3861	0.1118	0.0380	0.0079	7.8462	0.0792	NA
30733-01	144.	0.3035	0.2796	0.0239	0.0434	0.0085	7.3367	0.0952	NA
MEAN	148.	0.3427	0.2586	0.0841	0.0375	0.0081	7.5442	0.0858	0.0520
S.D.	9.1	0.18133	0.08217	0.15503	0.00658	0.00156	0.72846	0.01670	0.00436
N	15	15	15	15	15	15	15	10	5

FBW = FINAL BODY WEIGHT
NA = NOT APPLICABLE
A = INADVERTENTLY WEIGHED WITHOUT OVIDUCTS

TABLE 20
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL ORGAN WEIGHTS, LUMINAL FLUID WEIGHTS AND FINAL BODY WEIGHTS [G]

FEMALE GROUP: TS03017 250

ANIMAL	FBW(G)	UTERUS - WET	UTERUS BLOT.	LUMINAL FLUID	ADRENAL GLANDS	PITU ITARY	LIVER	OVARIES/ OVIDUCTS	OVARIES-A
30721-04	137.	0.3438	0.2870	0.0568	0.0409	0.0070	7.3848	NA	0.0731
30721-08	143.	0.2826	0.2584	0.0242	0.0443	0.0085	7.7451	NA	0.0406
30723-07	123.	0.2381	0.2119	0.0262	0.0278	0.0057	5.5800	NA	0.0572
30723-08	135.	0.4778	0.4170	0.0608	0.0342	0.0073	7.0778	NA	0.0600
30723-09	127.	0.2716	0.2516	0.0200	0.0376	0.0082	6.7908	NA	0.0418
30725-10	149.	0.3040	0.2816	0.0224	0.0480	0.0098	8.7156	0.0978	NA
30725-12	161.	0.4542	0.4169	0.0373	0.0506	0.0107	8.7779	0.1039	NA
30726-13	145.	0.6179	0.4153	0.2026	0.0370	0.0091	7.7910	0.0813	NA
30728-11	128.	0.8651	0.3490	0.5161	0.0315	0.0077	5.6652	0.0777	NA
30728-13	151.	0.2775	0.2580	0.0195	0.0336	0.0060	7.1379	0.0618	NA
30730-10	137.	0.3167	0.2937	0.0230	0.0331	0.0069	7.0370	NA	0.0631
30731-01	144.	0.5553	0.4311	0.1242	0.0497	0.0096	7.1823	0.0785	NA
30731-09	144.	0.2744	0.2531	0.0213	0.0424	0.0083	8.7761	0.0707	NA
30733-06	146.	0.2729	0.2522	0.0207	0.0430	0.0069	7.5365	0.0736	NA
30733-07	146.	0.2373	0.2134	0.0239	0.0419	0.0091	7.4935	0.0766	NA
MEAN	141.	0.3859	0.3060	0.0799	0.0397	0.0081	7.3794	0.0802	0.0560
S.D.	10.0	0.17791	0.07830	0.13089	0.00689	0.00144	0.95846	0.01307	0.01264
N	15	15	15	15	15	15	15	9	6

FBW = FINAL BODY WEIGHT
NA = NOT APPLICABLE
A = INADVERTENTLY WEIGHED WITHOUT OVIDUCTS

TABLE 20
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL ORGAN WEIGHTS, LUMINAL FLUID WEIGHTS AND FINAL BODY WEIGHTS [G]

FEMALE GROUP: TS03017 1000

ANIMAL	FBW(G)	UTERUS - WET	UTERUS BLOT.	LUMINAL FLUID	ADRENAL GLANDS	PITU ITARY	LIVER	OVARIES/ OVIDUCTS	OVARIES-A
30721-01	154.	0.2290	0.2127	0.0163	0.0326	0.0065	11.3928	NA	0.0351
30721-14	141.	0.2805	0.2673	0.0132	0.0421	0.0056	9.3005	NA	0.0516
30722-03	155.	0.2524	0.2289	0.0235	0.0400	0.0064	10.9760	NA	0.0450
30723-06	109.	0.3006	0.2738	0.0268	0.0290	0.0056	6.4955	NA	0.0331
30724-01	124.	0.2266	0.1996	0.0270	0.0432	0.0071	7.7327	NA	0.0490
30725-03	135.	0.3310	0.3067	0.0243	0.0560	0.0073	8.8183	0.1009	NA
30725-05	152.	0.3273	0.3033	0.0240	0.0461	0.0085	9.3239	0.0782	NA
30725-08	153.	0.2985	0.2734	0.0251	0.0503	0.0080	10.1192	0.0749	NA
30726-03	149.	0.2772	0.2457	0.0315	0.0402	0.0094	8.9607	0.0719	NA
30728-01	150.	0.4733	0.3899	0.0834	0.0455	0.0067	8.3376	0.0748	NA
30730-11	149.	0.2845	0.2675	0.0170	0.0527	0.0096	9.9811	0.0828	NA
30731-05	140.	0.3031	0.2820	0.0211	0.0389	0.0094	8.5491	0.0633	NA
30731-07	137.	0.4346	0.3038	0.1308	0.0377	0.0048	7.6218	0.0542	NA
30733-04	149.	0.2723	0.2502	0.0221	0.0493	0.0080	9.1738	0.0687	NA
30733-09	148.	0.3774	0.3498	0.0276	0.0474	0.0078	8.7566	0.0822	NA
MEAN	143.	0.3112	0.2770	0.0342	0.0434	0.0074	9.0360	0.0752	0.0428
S.D.	12.7	0.06999	0.04979	0.03126	0.00735	0.00148	1.26956	0.01253	0.00828
N	15	15	15	15	15	15	15	10	5

FBW = FINAL BODY WEIGHT
NA = NOT APPLICABLE
A = INADVERTENTLY WEIGHED WITHOUT OVIDUCTS

TABLE 20
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL ORGAN WEIGHTS, LUMINAL FLUID WEIGHTS AND FINAL BODY WEIGHTS [G]

FEMALE GROUP: TS03018 60

ANIMAL	FBW(G)	UTERUS - WET	UTERUS BLOT.	LUMINAL FLUID	ADRENAL GLANDS	PITU ITARY	LIVER	OVARIES/ OVIDUCTS	OVARIES-A
30721-09	135.	0.6342	0.4003	0.2339	0.0380	0.0079	7.4070	NA	0.0487
30721-13	137.	0.2187	0.1952	0.0235	0.0324	0.0069	7.2386	NA	0.0431
30722-06	120.	0.1860	0.1756	0.0104	0.0281	0.0063	5.4138	NA	0.0276
30723-01	151.	0.3801	0.3488	0.0313	0.0399	0.0077	7.8396	NA	0.0417
30724-10	142.	0.3040	0.2932	0.0108	0.0420	0.0068	7.2681	NA	0.0425
30725-01	141.	0.7801	0.3988	0.3813	0.0389	0.0091	7.6556	0.0654	NA
30725-06	142.	0.3393	0.3126	0.0267	0.0374	0.0092	7.2768	0.0752	NA
30726-12	138.	0.3235	0.2910	0.0325	0.0329	0.0094	7.7093	0.0716	NA
30728-07	141.	0.4652	0.3669	0.0983	0.0357	0.0059	5.9478	0.0626	NA
30728-14	139.	B	B	B	0.0456	0.0094	6.9577	0.0938	NA
30729-09	165.	0.4592	0.3665	0.0927	0.0378	0.0102	8.8166	0.0733	NA
30730-08	144.	0.6217	0.4412	0.1805	0.0444	0.0090	8.1290	0.0836	NA
30731-03	147.	0.2452	0.2260	0.0192	0.0346	0.0064	7.5621	0.0528	NA
30731-06	143.	0.2298	0.2129	0.0169	0.0377	0.0068	7.0478	0.0600	NA
30733-08	157.	0.3958	0.3516	0.0442	0.0401	0.0078	7.5918	0.0680	NA
MEAN	143.	0.3988	0.3129	0.0859	0.0377	0.0079	7.3241	0.0706	0.0407
S.D.	10.1	0.17693	0.08375	0.10878	0.00459	0.00137	0.81510	0.01185	0.00784
N	15	14	14	14	15	15	15	10	5

FBW = FINAL BODY WEIGHT
NA = NOT APPLICABLE
A = INADVERTENTLY WEIGHED WITHOUT OVIDUCTS
B = BLOTTED UTERUS WEIGHT GREATER THAN WET WEIGHT, NOT INCLUDED IN CALCULATION OF MEAN; LUMINAL FLUID WEIGHT CALCULATION NOT POSSIBLE

TABLE 20
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL ORGAN WEIGHTS, LUMINAL FLUID WEIGHTS AND FINAL BODY WEIGHTS [G]

FEMALE GROUP: TS03018 250

ANIMAL	FBW(G)	UTERUS - WET	UTERUS BLOT.	LUMINAL FLUID	ADRENAL GLANDS	PITU ITARY	LIVER	OVARIES/ OVIDUCTS	OVARIES-A
30721-03	119.	0.2157	0.2004	0.0153	0.0311	0.0054	6.1503	NA	0.0411
30721-12	154.	0.2189	0.2085	0.0104	0.0444	0.0084	8.5925	NA	0.0594
30723-04	145.	0.2130	0.1901	0.0229	0.0373	0.0070	7.5700	NA	0.0502
30723-14	130.	0.2485	0.2387	0.0098	0.0374	0.0070	7.1869	NA	0.0524
30724-14	148.	0.2293	0.2126	0.0167	0.0372	0.0091	9.0212	NA	0.0289
30725-07	159.	0.2807	0.2452	0.0355	0.0495	0.0093	8.1794	0.0867	NA
30725-09	137.	0.1978	0.1842	0.0136	0.0382	0.0088	7.7398	0.0465	NA
30726-02	144.	0.3142	0.2786	0.0356	0.0435	0.0083	8.4445	0.0742	NA
30726-06	156.	0.3142	0.2912	0.0230	0.0558	0.0093	9.0033	0.1043	NA
30728-12	148.	0.3930	0.2987	0.0943	0.0451	0.0080	6.7007	0.0684	NA
30729-03	142.	0.1745	0.0781	0.0964	0.0470	0.0080	7.8146	0.0606	NA
30729-05	159.	0.2374	0.2148	0.0226	0.0390	0.0103	9.2252	0.0594	NA
30731-08	130.	0.2338	0.2051	0.0287	0.0458	0.0070	7.6601	0.0667	NA
30731-11	132.	0.2194	0.2015	0.0179	0.0346	0.0071	7.9833	0.0386	NA
30733-03	154.	0.2269	0.2062	0.0207	0.0467	0.0082	7.6604	0.0668	NA
MEAN	144.	0.2478	0.2169	0.0309	0.0422	0.0081	7.9288	0.0672	0.0464
S.D.	12.1	0.05595	0.05292	0.02730	0.00648	0.00123	0.85958	0.01873	0.01177
N	15	15	15	15	15	15	15	10	5

FBW = FINAL BODY WEIGHT
NA = NOT APPLICABLE
A = INADVERTENTLY WEIGHED WITHOUT OVIDUCTS

TABLE 20
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL ORGAN WEIGHTS, LUMINAL FLUID WEIGHTS AND FINAL BODY WEIGHTS [G]

FEMALE GROUP: TS03018 1000

ANIMAL	FBW(G)	UTERUS - WET	UTERUS BLOT.	LUMINAL FLUID	ADRENAL GLANDS	PITU ITARY	LIVER	OVARIES/ OVIDUCTS	OVARIES-A
30721-07	149.	0.2467	0.2386	0.0081	0.0459	0.0074	10.8275	NA	0.0404
30723-02	120.	0.2098	0.1906	0.0192	0.0412	0.0065	8.7318	NA	0.0253
30724-03	137.	0.2163	0.2072	0.0091	0.0380	0.0052	10.2425	NA	0.0314
30724-11	129.	0.2045	0.1893	0.0152	0.0382	0.0051	9.6993	NA	0.0144
30724-12	139.	0.1718	0.1639	0.0079	0.0388	0.0077	9.9738	NA	0.0327
30726-09	160.	0.2104	0.1913	0.0191	0.0460	0.0081	13.6777	0.0448	NA
30726-10	143.	0.1866	0.1721	0.0145	0.0415	0.0083	11.0316	0.0450	NA
30726-14	124.	0.2092	0.1964	0.0128	0.0482	0.0058	9.1275	0.0429	NA
30728-04	135.	0.1868	0.1713	0.0155	0.0440	0.0094	9.3681	0.0533	NA
30730-01	132.	0.1965	0.1855	0.0110	0.0294	0.0053	9.9928	0.0349	NA
30730-07	144.	0.2299	0.2169	0.0130	0.0526	0.0066	9.6922	0.0401	NA
30733-05	139.	0.2204	0.1999	0.0205	0.0421	0.0084	9.5999	0.0381	NA
30733-10	141.	0.2169	0.2040	0.0129	0.0446	0.0078	10.7735	0.0372	NA
MEAN	138.	0.2081	0.1944	0.0138	0.0423	0.0070	10.2106	0.0420	0.0288
S.D.	10.5	0.01969	0.02008	0.00415	0.00571	0.00140	1.24062	0.00583	0.00970
N	13	13	13	13	13	13	13	8	5

FBW = FINAL BODY WEIGHT
NA = NOT APPLICABLE
A = INADVERTENTLY WEIGHED WITHOUT OVIDUCTS

POFBWv4.13
09/10/2003
R: 09/12/2003

TABLE 21
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL ORGAN WTS. RELATIVE TO FINAL BODY WTS. [G/100 G]

FEMALE GROUP: CORN OIL

ANIMAL	FBW(G)	UTERUS - WET	UTERUS - BLOT.	ADRENAL GLANDS	PITU ITARY	LIVER	OVARIES/ OVIDUCTS	OVARIES-A
30721-05	141.	0.139	0.129	0.023	0.006	5.430	NA	0.036
30722-01	119.	0.310	0.288	0.021	0.005	5.144	NA	0.034
30723-03	137.	0.237	0.223	0.010	0.006	5.775	NA	0.026
30723-11	145.	0.201	0.181	0.022	0.007	5.169	NA	0.048
30723-12	120.	0.173	0.155	0.017	0.006	4.816	NA	0.036
30725-02	157.	0.179	0.165	0.027	0.006	5.421	0.053	NA
30725-13	134.	0.344	0.263	0.029	0.005	4.227	0.065	NA
30726-05	157.	0.169	0.149	0.022	0.005	4.738	0.038	NA
30727-09	116.	0.209	0.187	0.031	0.006	4.223	0.064	NA
30728-06	154.	0.364	0.274	0.026	0.005	4.977	0.062	NA
30731-04	120.	0.161	0.129	0.023	0.006	4.944	NA	0.041
30731-10	132.	0.242	0.218	0.027	0.006	5.212	0.086	NA
30733-02	142.	0.238	0.219	0.025	0.007	5.090	0.049	NA
30733-12	162.	0.130	0.119	0.023	0.005	4.946	0.059	NA
30733-13	149.	0.163	0.149	0.021	0.005	4.346	0.054	NA
MEAN	139.	0.217	0.190	0.023	0.006	4.964	0.059	0.037
S.D.	15.3	0.0725	0.0551	0.0051	0.0007	0.4459	0.0132	0.0073
N	15	15	15	15	15	15	9	6

FBW = FINAL BODY WEIGHT
NA = NOT APPLICABLE
A = INADVERTENTLY WEIGHED WITHOUT OVIDUCTS

TABLE 21
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL ORGAN WTS. RELATIVE TO FINAL BODY WTS. [G/100 G]

FEMALE GROUP: TS03017 60

ANIMAL	FBW(G)	UTERUS - WET	UTERUS - BLOT.	ADRENAL GLANDS	PITU ITARY	LIVER	OVARIES/ OVIDUCTS	OVARIES-A
30721-02	139.	0.483	0.319	0.027	0.005	5.323	NA	0.034
30721-11	141.	0.152	0.143	0.022	0.003	4.625	NA	0.040
30722-04	147.	0.127	0.114	0.019	0.004	6.071	NA	0.032
30723-05	130.	0.144	0.119	0.025	0.005	5.173	NA	0.043
30724-09	139.	0.187	0.166	0.022	0.005	4.697	NA	0.038
30725-04	148.	0.196	0.170	0.034	0.006	5.617	0.067	NA
30726-01	150.	0.216	0.199	0.031	0.006	5.303	0.060	NA
30726-07	161.	0.167	0.150	0.023	0.006	4.511	0.053	NA
30726-08	157.	0.133	0.121	0.027	0.006	5.230	0.048	NA
30728-05	156.	0.185	0.166	0.023	0.006	5.294	0.051	NA
30729-08	150.	0.164	0.149	0.024	0.006	4.789	0.055	NA
30730-04	137.	0.588	0.144	0.022	0.006	4.956	0.039	NA
30730-12	158.	0.245	0.224	0.028	0.007	5.004	0.075	NA
30731-12	156.	0.319	0.248	0.024	0.005	5.030	0.051	NA
30733-01	144.	0.211	0.194	0.030	0.006	5.095	0.066	NA
MEAN	148.	0.234	0.175	0.025	0.005	5.115	0.057	0.037
S.D.	9.1	0.1329	0.0552	0.0040	0.0010	0.3986	0.0106	0.0044
N	15	15	15	15	15	15	10	5

FBW = FINAL BODY WEIGHT
NA = NOT APPLICABLE
A = INADVERTENTLY WEIGHED WITHOUT OVIDUCTS

TABLE 21
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL ORGAN WTS. RELATIVE TO FINAL BODY WTS. [G/100 G]

FEMALE GROUP: TS03017 250

ANIMAL	FBW(G)	UTERUS - WET	UTERUS - BLOT.	ADRENAL GLANDS	PITU ITARY	LIVER	OVARIES/ OVIDUCTS	OVARIES-A
30721-04	137.	0.251	0.209	0.030	0.005	5.390	NA	0.053
30721-08	143.	0.198	0.181	0.031	0.006	5.416	NA	0.028
30723-07	123.	0.194	0.172	0.023	0.005	4.537	NA	0.047
30723-08	135.	0.354	0.309	0.025	0.005	5.243	NA	0.044
30723-09	127.	0.214	0.198	0.030	0.006	5.347	NA	0.033
30725-10	149.	0.204	0.189	0.032	0.007	5.849	0.066	NA
30725-12	161.	0.282	0.259	0.031	0.007	5.452	0.065	NA
30726-13	145.	0.426	0.286	0.026	0.006	5.373	0.056	NA
30728-11	128.	0.676	0.273	0.025	0.006	4.426	0.061	NA
30728-13	151.	0.184	0.171	0.022	0.004	4.727	0.041	NA
30730-10	137.	0.231	0.214	0.024	0.005	5.136	NA	0.046
30731-01	144.	0.386	0.299	0.035	0.007	4.988	0.055	NA
30731-09	144.	0.191	0.176	0.029	0.006	6.095	0.049	NA
30733-06	146.	0.187	0.173	0.029	0.005	5.162	0.050	NA
30733-07	146.	0.163	0.146	0.029	0.006	5.133	0.052	NA
MEAN	141.	0.276	0.217	0.028	0.006	5.218	0.055	0.042
S.D.	10.0	0.1367	0.0536	0.0037	0.0009	0.4419	0.0081	0.0094
N	15	15	15	15	15	15	9	6

FBW = FINAL BODY WEIGHT
NA = NOT APPLICABLE
A = INADVERTENTLY WEIGHED WITHOUT OVIDUCTS

TABLE 21
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL ORGAN WTS. RELATIVE TO FINAL BODY WTS. [G/100 G]

FEMALE GROUP: TS03017 1000

ANIMAL	FBW(G)	UTERUS - WET	UTERUS - BLOT.	ADRENAL GLANDS	PITU ITARY	LIVER	OVARIES/ OVIDUCTS	OVARIES-A
30721-01	154.	0.149	0.138	0.021	0.004	7.398	NA	0.023
30721-14	141.	0.199	0.190	0.030	0.004	6.596	NA	0.037
30722-03	155.	0.163	0.148	0.026	0.004	7.081	NA	0.029
30723-06	109.	0.276	0.251	0.027	0.005	5.959	NA	0.030
30724-01	124.	0.183	0.161	0.035	0.006	6.236	NA	0.040
30725-03	135.	0.245	0.227	0.041	0.005	6.532	0.075	NA
30725-05	152.	0.215	0.200	0.030	0.006	6.134	0.051	NA
30725-08	153.	0.195	0.179	0.033	0.005	6.614	0.049	NA
30726-03	149.	0.186	0.165	0.027	0.006	6.014	0.048	NA
30728-01	150.	0.316	0.260	0.030	0.004	5.558	0.050	NA
30730-11	149.	0.191	0.180	0.035	0.006	6.699	0.056	NA
30731-05	140.	0.217	0.201	0.028	0.007	6.107	0.045	NA
30731-07	137.	0.317	0.222	0.028	0.004	5.563	0.040	NA
30733-04	149.	0.183	0.168	0.033	0.005	6.157	0.046	NA
30733-09	148.	0.255	0.236	0.032	0.005	5.917	0.056	NA
MEAN	143.	0.219	0.195	0.030	0.005	6.304	0.052	0.032
S.D.	12.7	0.0519	0.0374	0.0047	0.0010	0.5170	0.0095	0.0068
N	15	15	15	15	15	15	10	5

FBW = FINAL BODY WEIGHT
NA = NOT APPLICABLE
A = INADVERTENTLY WEIGHED WITHOUT OVIDUCTS

TABLE 21
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL ORGAN WTS. RELATIVE TO FINAL BODY WTS. [G/100 G]

FEMALE GROUP: TS03018 60

ANIMAL	FBW(G)	UTERUS - WET	UTERUS - BLOT.	ADRENAL GLANDS	PITU ITARY	LIVER	OVARIES/ OVIDUCTS	OVARIES-A
30721-09	135.	0.470	0.297	0.028	0.006	5.487	NA	0.036
30721-13	137.	0.160	0.142	0.024	0.005	5.284	NA	0.031
30722-06	120.	0.155	0.146	0.023	0.005	4.512	NA	0.023
30723-01	151.	0.252	0.231	0.026	0.005	5.192	NA	0.028
30724-10	142.	0.214	0.206	0.030	0.005	5.118	NA	0.030
30725-01	141.	0.553	0.283	0.028	0.006	5.430	0.046	NA
30725-06	142.	0.239	0.220	0.026	0.006	5.125	0.053	NA
30726-12	138.	0.234	0.211	0.024	0.007	5.586	0.052	NA
30728-07	141.	0.330	0.260	0.025	0.004	4.218	0.044	NA
30728-14	139.	B	B	0.033	0.007	5.006	0.067	NA
30729-09	165.	0.278	0.222	0.023	0.006	5.343	0.044	NA
30730-08	144.	0.432	0.306	0.031	0.006	5.645	0.058	NA
30731-03	147.	0.167	0.154	0.024	0.004	5.144	0.036	NA
30731-06	143.	0.161	0.149	0.026	0.005	4.929	0.042	NA
30733-08	157.	0.252	0.224	0.026	0.005	4.836	0.043	NA
MEAN	143.	0.278	0.218	0.026	0.005	5.124	0.049	0.030
S.D.	10.1	0.1249	0.0556	0.0030	0.0009	0.3891	0.0091	0.0047
N	15	14	14	15	15	15	10	5

FBW = FINAL BODY WEIGHT
NA = NOT APPLICABLE
A = INADVERTENTLY WEIGHED WITHOUT OVIDUCTS
B = BLOTTED UTERUS WEIGHT GREATER THAN WET WEIGHT, NOT INCLUDED IN CALCULATION OF MEAN

TABLE 21
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL ORGAN WTS. RELATIVE TO FINAL BODY WTS. [G/100 G]

FEMALE GROUP: TS03018 250

ANIMAL	FBW(G)	UTERUS - WET	UTERUS - BLOT.	ADRENAL GLANDS	PITU ITARY	LIVER	OVARIES/ OVIDUCTS	OVARIES-A
30721-03	119.	0.181	0.168	0.026	0.005	5.168	NA	0.035
30721-12	154.	0.142	0.135	0.029	0.005	5.580	NA	0.039
30723-04	145.	0.147	0.131	0.026	0.005	5.221	NA	0.035
30723-14	130.	0.191	0.184	0.029	0.005	5.528	NA	0.040
30724-14	148.	0.155	0.144	0.025	0.006	6.095	NA	0.020
30725-07	159.	0.177	0.154	0.031	0.006	5.144	0.055	NA
30725-09	137.	0.144	0.134	0.028	0.006	5.649	0.034	NA
30726-02	144.	0.218	0.193	0.030	0.006	5.864	0.052	NA
30726-06	156.	0.201	0.187	0.036	0.006	5.771	0.067	NA
30728-12	148.	0.266	0.202	0.030	0.005	4.527	0.046	NA
30729-03	142.	0.123	0.055	0.033	0.006	5.503	0.043	NA
30729-05	159.	0.149	0.135	0.025	0.006	5.802	0.037	NA
30731-08	130.	0.180	0.158	0.035	0.005	5.892	0.051	NA
30731-11	132.	0.166	0.153	0.026	0.005	6.048	0.029	NA
30733-03	154.	0.147	0.134	0.030	0.005	4.974	0.043	NA
MEAN	144.	0.172	0.151	0.029	0.005	5.518	0.046	0.034
S. D.	12.1	0.0364	0.0357	0.0035	0.0005	0.4365	0.0111	0.0080
N	15	15	15	15	15	15	10	5

FBW = FINAL BODY WEIGHT
NA = NOT APPLICABLE
A = INADVERTENTLY WEIGHED WITHOUT OVIDUCTS

TABLE 21
PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
INDIVIDUAL ORGAN WTS. RELATIVE TO FINAL BODY WTS. [G/100 G]

FEMALE GROUP: TS03018 1000

ANIMAL	FBW(G)	UTERUS - WET	UTERUS - BLOT.	ADRENAL GLANDS	PITU ITARY	LIVER	OVARIES/ OVIDUCTS	OVARIES-A
30721-07	149.	0.166	0.160	0.031	0.005	7.267	NA	0.027
30723-02	120.	0.175	0.159	0.034	0.005	7.277	NA	0.021
30724-03	137.	0.158	0.151	0.028	0.004	7.476	NA	0.023
30724-11	129.	0.159	0.147	0.030	0.004	7.519	NA	0.011
30724-12	139.	0.124	0.118	0.028	0.006	7.175	NA	0.024
30726-09	160.	0.132	0.120	0.029	0.005	8.549	0.028	NA
30726-10	143.	0.130	0.120	0.029	0.006	7.714	0.031	NA
30726-14	124.	0.169	0.158	0.039	0.005	7.361	0.035	NA
30728-04	135.	0.138	0.127	0.033	0.007	6.939	0.039	NA
30730-01	132.	0.149	0.141	0.022	0.004	7.570	0.026	NA
30730-07	144.	0.160	0.151	0.037	0.005	6.731	0.028	NA
30733-05	139.	0.159	0.144	0.030	0.006	6.906	0.027	NA
30733-10	141.	0.154	0.145	0.032	0.006	7.641	0.026	NA
MEAN	138.	0.152	0.142	0.031	0.005	7.394	0.030	0.021
S.D.	10.5	0.0160	0.0154	0.0043	0.0009	0.4577	0.0047	0.0061
N	13	13	13	13	13	13	8	5

FBW = FINAL BODY WEIGHT
NA = NOT APPLICABLE
A = INADVERTENTLY WEIGHED WITHOUT OVIDUCTS

POFBWv4.13
09/10/2003
R: 09/11/2003

APPENDIX A

Certificates of Analysis (Sponsor-Provided Data)

Test Substance Certificate

Test Substance
TS03017

Lot #
TS03017

Purity
100%

Physical Description
Dark brown, grease-like solid

Storage Conditions
Ambient

Expiration Date
1 May 2004

Additional Comments
None

Test Substance Certificate

Test Substance
TS03018

Lot #
TS03018

Purity
100%

Physical Description
Dark brown, opaque, very viscous liquid

Storage Conditions
Ambient

Expiration Date
1 May 2004

Additional Comments
None

APPENDIX B

Analytical Chemistry Report (Sponsor-Provided Data)

TITLE

The Analytical Report in Support of a Female Pubertal Assay of SP 7077 Variant (TS03017) and SP 7077 Variant (TS03018) Administered Orally in Juvenile Female Rats

SUBMITTED TO SUPPORT THE TESTING OF:
SP 7077 Variants, TS03017 and TS03018

AUTHOR

STUDY INITIATION DATE
19 June 2003

ANALYTICAL START DATE
30 June 2003

ANALYTICAL END DATE
3 September 2003

ANALYTICAL STUDY COMPLETION DATE
3 October 2003

TOTAL PAGES
14

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ANALYTICAL STUDY GLP COMPLIANCE STATEMENT

All analytical tests performed by

nducted in compliance with current EPA Good Laboratory Practice (GLP) standards as described by the Toxic Substances Control Act (TSCA) 40 CFR Part 792, and the revised Organization for Economic Cooperation and Development (OECD) Principles of GLP, ENV/MC/CHEM(98)17.

ANALYTICAL STUDY QUALITY ASSURANCE UNIT STATEMENT

The analytical raw data and final report for the Integrated Laboratory Technologies (ILT) study have been reviewed by the ILT Quality Assurance Team.

The report appears to accurately describe the methods and Standard Operating Procedures (SOPs) used in the study. The reported results accurately reflect the raw data of the study.

Study #

[ ]

Study Title
The Analytical Report in Support of a Female Pubertal Assay of SP 7077 Variant (TS03017) and SP 7077 Variant (TS03018) Administered Orally in Juvenile Female Rats

	Study Director	*Dates Reported to* WIL Research Mgmt	ILT Mgmt
Study In-progress Inspection 25 July 03	8 August 03	8 August 03	8 August 03
Analytical Draft Report Review 25-29 August 03 5 September 03	3 October 03	3 October 03	3 October 03
Analytical Final Report Review 8 September 03 2-3 October 03	3 October 03	3 October 03	3 October 03

ABSTRACT

Samples of suspensions (TS03017 and TS03018 in corn oil) used in a female pubertal assay in rats [illegible] alyzed at [illegible] ogeneity, stability, and nominal concentrations. A direct dilution procedure was employed to prepare the samples for elemental analysis by Inductively Coupled Plasma-Atomic Emission Spectroscopy (ICP-AES). Homogeneity and stability of TS03017 and TS03018 in corn oil were established. The nominal concentrations of all dosing suspensions were verified by the analytical data.

TEST SUBSTANCE

The test substances used in the preparation of the dosing suspensions are identified as SP 7077 variants by the Sponsor with lot numbers of TS03017 and TS03018. The CAS numbers are confidential; contac [illegible] information. The test substances were characterized and their stabilities were established prior to the initiation of the study.

INTRODUCTION

The purpose of this analytical study was the determination and verification of test substance homogeneity, stability, and concentration in corn oil. The concentration study samples were aliquots taken from mixtures prepared as dosing suspensions for a female pubertal assay in rats as outlined in the protocol for [illegible]

The analytical portion of the study was performed by the Elemental Analysis Team located in the Integrated Laboratory Technologies (ILT) group at [illegible] he analytical start and end dates were 30 June 2003 and 3 September 2003 respectively.

EXPERIMENTAL

SAMPLES
Samples were shipped from [illegible] ILT's Principal Investigator. Samples were stored at room temperature and in the dark prior to analysis.

The first batch of samples was transferred to the laboratory and analyzed on 30 June 2003. The analysis of the last sample was completed on 1 August 2003. Test substance and vehicle densities were determined on 3 September 2003.

STANDARDS
Calibration standards for the ICP-AES were made from certified commercially prepared elemental concentrates (Conostan Division of Conoco, Inc.). Standard preparation data is archived by ILT.

ANALYTICAL METHOD
Samples were prepared as stated in ILT's Test Code 30157, SOP ME-007 "Direct Dilution Method to Verify Concentrations of Additives Dissolved in Solvent Vehicles," and analyzed following the procedure outlined in SOP EQ-114 "Model 3560 Inductively Coupled Plasma Spectrometer."

The approach employed in this method was to verify concentration based on the known elemental composition of TS03017 and TS03018. Aliquots of the dosing suspensions were diluted in an o-xylene diluent and the elemental composition was determined by ICP-AES. The calcium concentration of the samples was then used to ascertain the concentration of the test substance in the dosing suspensions.

DISCUSSION

DETERMINATION OF THE METHOD DETECTION LIMIT
The method detection limit (MDL) was determined following the procedure outlined in 40 CFR 136 Appendix B. The procedure required seven measurements of a standard. The mean, standard deviation, and variance of the replicates were used in the computation of the MDL. The MDL for calcium was calculated to be 0.007 weight (wt) ppm. A reporting limit of 0.7 wt ppm is used for vehicle sample results.

SAMPLE ANALYSIS
The analytical results for the suspensions of TS03017 and TS03018 in corn oil are summarized in the tables located on pages 8 through 14. Nine calibration standards were analyzed to generate a second order fit with inverse concentration-squared weighting. All instrument control checks were within acceptable limits. Known amounts of calcium were spiked into 17 samples throughout the duration of the study and gave acceptable percent recoveries of 96 to 101%.

The dosing suspensions were analyzed for calcium, an element present in known concentrations in the SP 7077 variants. Dosing suspension estimates of weight percent calcium were derived by the following formula:

$$Wt\%\ Ca = \left[\frac{x}{x + \left(D_2 - \frac{xD_2}{D_1} \right)} \right] \%\ Ca\ in\ SP7077\ Variant$$

where x is the solute test substance concentration in mg/µL; D_1 is the test substance density (0.9522 g/mL for TS03017 and 0.9810 g/mL for TS03018); and D_2 is the vehicle or solvent density (corn oil, 0.9192 g/mL). The concentration of calcium in TS03017 is 3.02 wt% and 5.05% in TS03018. The measured results of calcium were obtained by ICP-AES, converted to wt% from ppm by multiplying by 10^{-4}, and then compared against the theoretical values.

Homogeneity was confirmed if the percent differences between the overall dose level mean and individual strata means were 10% or less. Stability and concentration data were evaluated using percent difference. The acceptable tolerance was 15%. Duplicate analyses were compared using the Contract Laboratories Program (CLP) Guidelines for Inorganic Analyses relative percent difference limit of 20%.

RESULTS AND CONCLUSIONS

The confirmation of dosing suspension homogeneity is supported by the data presented on pages 8 and 9. The percent difference of all strata means with their respective overall mean is well below the 10% tolerance.

The stabilities of TS03017 and TS03018 in corn oil are established on pages 10 and 11. The percent difference between the estimated and measured concentrations is less than 15% for all dosing levels.

The analytical result summaries for the concentration studies are found on pages 12 and 13. The nominal concentrations of all dosing suspensions were verified by the analytical data. The percent difference between the estimated and measured concentrations is less than 15% for all dosing levels.

The table on page 14 presents the duplicate precision data. The agreement between the duplicates is excellent and well under the CLP relative percent difference guideline of 20%.

ARCHIVES

SAMPLES
The unused portion of all samples shall be stored in room [redacted] r a minimum of one year after the final analytical report is issued.

RAW DATA
Calibration data; and instrument, chemical, and standard logbook documentation shall be archived by ILT as facility record [redacted] other raw data shall be archived in the Analytical Study File in ILT's Analytical Study Archives.

FINAL REPORT
A copy of the final report shall be archived with the Analytical Study File in ILT.

PROTOCOL AND SOP DEVIATIONS

There were no protocol or SOP deviations.

STUDY PERSONNEL

PRINCIPAL INVESTIGATOR

ANALYSTS

SUPERVISORY PERSONNEL

SUMMARY OF ANALYTICAL RESULTS

CONCENTRATION OF CALCIUM IN TS03017 SUSPENSIONS

Homogeneity Study

ILT AIMS #	Date Prepared	Date Sampled	Date Analyzed	WIL Research Sample #	WIL Research Group #	WIL Research Accession #	Aliquot Phase	Estimated Concentration TS03017, mg/mL	Estimated Concentration wt% Ca	Measured Concentration, wt% Ca	Strata Mean, wt% Ca	Overall Mean, wt% Ca	Percent Difference, %
3034307	26-Jun-03	26-Jun-03	30-Jun-03	RX-187039L-0001	1	1	Middle	0	0.000	<0.7 wt ppm	<0.7 wt ppm	<0.7 wt ppm	0.0
3034308	26-Jun-03	26-Jun-03	30-Jun-03	RX-187039L-0020	1	1	Middle	0	0.000	<0.7 wt ppm			
3034309	26-Jun-03	26-Jun-03	30-Jun-03	RX-187039L-0002	2	1	Top	12	0.039	0.041	0.042	0.042	0.0
3034310	26-Jun-03	26-Jun-03	30-Jun-03	RX-187039L-0021	2	1	Top	12	0.039	0.042			
3034311	26-Jun-03	26-Jun-03	30-Jun-03	RX-187039L-0003	2	1	Middle	12	0.039	0.042	0.042		0.0
3034312	26-Jun-03	26-Jun-03	30-Jun-03	RX-187039L-0022	2	1	Middle	12	0.039	0.042			
3034313	26-Jun-03	26-Jun-03	30-Jun-03	RX-187039L-0004	2	1	Bottom	12	0.039	0.042	0.042		0.0
3034314	26-Jun-03	26-Jun-03	30-Jun-03	RX-187039L-0023	2	1	Bottom	12	0.039	0.042			
3034315	26-Jun-03	26-Jun-03	30-Jun-03	RX-187039L-0005	3	1	Top	50	0.164	0.166	0.168	0.170	1.2
3034316	26-Jun-03	26-Jun-03	30-Jun-03	RX-187039L-0024	3	1	Top	50	0.164	0.169			
3034317	26-Jun-03	26-Jun-03	30-Jun-03	RX-187039L-0006	3	1	Middle	50	0.164	0.171	0.171		0.6
3034318	26-Jun-03	26-Jun-03	30-Jun-03	RX-187039L-0025	3	1	Middle	50	0.164	0.171			
3034319	26-Jun-03	26-Jun-03	30-Jun-03	RX-187039L-0007	3	1	Bottom	50	0.164	0.172	0.172		1.2
3034320	26-Jun-03	26-Jun-03	30-Jun-03	RX-187039L-0026	3	1	Bottom	50	0.164	0.172			
3034321	26-Jun-03	26-Jun-03	30-Jun-03	RX-187039L-0008	4	1	Top	200	0.652	0.674	0.690	0.686	0.6
3034322	26-Jun-03	26-Jun-03	30-Jun-03	RX-187039L-0027	4	1	Top	200	0.652	0.706			
3034323	26-Jun-03	26-Jun-03	30-Jun-03	RX-187039L-0009	4	1	Middle	200	0.652	0.679	0.682		0.6
3034324	26-Jun-03	26-Jun-03	30-Jun-03	RX-187039L-0028	4	1	Middle	200	0.652	0.684			
3034325	26-Jun-03	26-Jun-03	30-Jun-03	RX-187039L-0010	4	1	Bottom	200	0.652	0.686	0.686		0.0
3034326	26-Jun-03	26-Jun-03	30-Jun-03	RX-187039L-0029	4	1	Bottom	200	0.652	0.686			

PERCENT DIFFERENCE CALCULATION
Absolute value (((Overall Mean-Strata Mean)/Overall Mean)*100)

SUMMARY OF ANALYTICAL RESULTS

CONCENTRATION OF CALCIUM IN TS03018 SUSPENSIONS

Homogeneity Study

ILT AIMS #	Date Prepared	Date Sampled	Date Analyzed	WIL Research Sample #	WIL Research Group #	WIL Research Accession #	Aliquot Phase	Estimated Concentration TS03018, mg/mL	Estimated Concentration wt% Ca	Measured Concentration, wt% Ca	Strata Mean, wt% Ca	Overall Mean, wt% Ca	Percent Difference, %
3034327	26-Jun-03	26-Jun-03	30-Jun-03	RX-187039L-0011	5	1	Top	12	0.066	0.067			
3034328	26-Jun-03	26-Jun-03	30-Jun-03	RX-187039L-0030	5	1	Top	12	0.066	0.068	0.068		0.0
3034329	26-Jun-03	26-Jun-03	30-Jun-03	RX-187039L-0012	5	1	Middle	12	0.066	0.068		0.068	
3034330	26-Jun-03	26-Jun-03	30-Jun-03	RX-187039L-0031	5	1	Middle	12	0.066	0.067	0.068		0.0
3034331	26-Jun-03	26-Jun-03	30-Jun-03	RX-187039L-0013	5	1	Bottom	12	0.066	0.069			
3034332	26-Jun-03	26-Jun-03	30-Jun-03	RX-187039L-0032	5	1	Bottom	12	0.066	0.067	0.068		0.0
3034333	26-Jun-03	26-Jun-03	30-Jun-03	RX-187039L-0014	6	1	Top	50	0.274	0.271			
3034334	26-Jun-03	26-Jun-03	30-Jun-03	RX-187039L-0033	6	1	Top	50	0.274	0.276	0.274		0.4
3034335	26-Jun-03	26-Jun-03	30-Jun-03	RX-187039L-0015	6	1	Middle	50	0.274	0.277		0.275	
3034336	26-Jun-03	26-Jun-03	30-Jun-03	RX-187039L-0034	6	1	Middle	50	0.274	0.274	0.276		0.4
3034337	26-Jun-03	26-Jun-03	30-Jun-03	RX-187039L-0016	6	1	Bottom	50	0.274	0.278			
3034338	26-Jun-03	26-Jun-03	30-Jun-03	RX-187039L-0035	6	1	Bottom	50	0.274	0.276	0.277		0.7
3034339	26-Jun-03	26-Jun-03	30-Jun-03	RX-187039L-0017	7	1	Top	200	1.08	1.08			
3034340	26-Jun-03	26-Jun-03	30-Jun-03	RX-187039L-0036	7	1	Top	200	1.08	1.09	1.09		0.9
3034341	26-Jun-03	26-Jun-03	30-Jun-03	RX-187039L-0018	7	1	Middle	200	1.08	1.09		1.08	
3034342	26-Jun-03	26-Jun-03	30-Jun-03	RX-187039L-0037	7	1	Middle	200	1.08	1.08	1.08		0.0
3034343	26-Jun-03	26-Jun-03	30-Jun-03	RX-187039L-0019	7	1	Bottom	200	1.08	1.09			
3034344	26-Jun-03	26-Jun-03	30-Jun-03	RX-187039L-0038	7	1	Bottom	200	1.08	1.08	1.09		0.9

PERCENT DIFFERENCE CALCULATION
Absolute value (((Overall Mean-Strata Mean)/Overall Mean)*100)

SUMMARY OF ANALYTICAL RESULTS

CONCENTRATION OF CALCIUM IN TS03017 SUSPENSIONS

[ ]

Stability Study

ILT AIMS #	Date Prepared	Date Sampled	Date Analyzed	WIL Research Sample #	WIL Research Group #	WIL Research Accession #	Aliquot Phase	Estimated Concentration TS03017, mg/mL	Estimated Concentration wt% Ca	Measured Concentration, wt% Ca	Percent Difference, %
3034309	26-Jun-03	26-Jun-03	30-Jun-03	RX-187039L-0002	2	1	Top	12	0.039	0.041	5.1
3034309	26-Jun-03	26-Jun-03	10-Jul-03	RX-187039L-0002	2	1	Top	12	0.039	0.041	5.1
3034310	26-Jun-03	26-Jun-03	30-Jun-03	RX-187039L-0021	2	1	Top	12	0.039	0.042	7.7
3034310	26-Jun-03	26-Jun-03	10-Jul-03	RX-187039L-0021	2	1	Top	12	0.039	0.042	7.7
3034311	26-Jun-03	26-Jun-03	30-Jun-03	RX-187039L-0003	2	1	Middle	12	0.039	0.042	7.7
3034311	26-Jun-03	26-Jun-03	10-Jul-03	RX-187039L-0003	2	1	Middle	12	0.039	0.042	7.7
3034312	26-Jun-03	26-Jun-03	30-Jun-03	RX-187039L-0022	2	1	Middle	12	0.039	0.042	7.7
3034312	26-Jun-03	26-Jun-03	10-Jul-03	RX-187039L-0022	2	1	Middle	12	0.039	0.042	7.7
3034313	26-Jun-03	26-Jun-03	30-Jun-03	RX-187039L-0004	2	1	Bottom	12	0.039	0.042	7.7
3034313	26-Jun-03	26-Jun-03	10-Jul-03	RX-187039L-0004	2	1	Bottom	12	0.039	0.042	7.7
3034314	26-Jun-03	26-Jun-03	30-Jun-03	RX-187039L-0023	2	1	Bottom	12	0.039	0.042	7.7
3034314	26-Jun-03	26-Jun-03	10-Jul-03	RX-187039L-0023	2	1	Bottom	12	0.039	0.042	7.7
3034315	26-Jun-03	26-Jun-03	30-Jun-03	RX-187039L-0005	3	1	Top	50	0.164	0.166	1.2
3034315	26-Jun-03	26-Jun-03	10-Jul-03	RX-187039L-0005	3	1	Top	50	0.164	0.166	1.2
3034316	26-Jun-03	26-Jun-03	30-Jun-03	RX-187039L-0024	3	1	Top	50	0.164	0.169	3.0
3034316	26-Jun-03	26-Jun-03	10-Jul-03	RX-187039L-0024	3	1	Top	50	0.164	0.170	3.7
3034317	26-Jun-03	26-Jun-03	30-Jun-03	RX-187039L-0006	3	1	Middle	50	0.164	0.171	4.3
3034317	26-Jun-03	26-Jun-03	10-Jul-03	RX-187039L-0006	3	1	Middle	50	0.164	0.171	4.3
3034318	26-Jun-03	26-Jun-03	30-Jun-03	RX-187039L-0025	3	1	Middle	50	0.164	0.171	4.3
3034318	26-Jun-03	26-Jun-03	10-Jul-03	RX-187039L-0025	3	1	Middle	50	0.164	0.171	4.3
3034319	26-Jun-03	26-Jun-03	30-Jun-03	RX-187039L-0007	3	1	Bottom	50	0.164	0.172	4.9
3034319	26-Jun-03	26-Jun-03	10-Jul-03	RX-187039L-0007	3	1	Bottom	50	0.164	0.171	4.3
3034320	26-Jun-03	26-Jun-03	30-Jun-03	RX-187039L-0026	3	1	Bottom	50	0.164	0.172	4.9
3034320	26-Jun-03	26-Jun-03	10-Jul-03	RX-187039L-0026	3	1	Bottom	50	0.164	0.169	3.0
3034321	26-Jun-03	26-Jun-03	30-Jun-03	RX-187039L-0008	4	1	Top	200	0.652	0.674	3.4
3034321	26-Jun-03	26-Jun-03	10-Jul-03	RX-187039L-0008	4	1	Top	200	0.652	0.664	1.8
3034322	26-Jun-03	26-Jun-03	30-Jun-03	RX-187039L-0027	4	1	Top	200	0.652	0.706	8.3
3034322	26-Jun-03	26-Jun-03	10-Jul-03	RX-187039L-0027	4	1	Top	200	0.652	0.701	7.5
3034323	26-Jun-03	26-Jun-03	30-Jun-03	RX-187039L-0009	4	1	Middle	200	0.652	0.679	4.1
3034323	26-Jun-03	26-Jun-03	10-Jul-03	RX-187039L-0009	4	1	Middle	200	0.652	0.669	2.6
3034324	26-Jun-03	26-Jun-03	30-Jun-03	RX-187039L-0028	4	1	Middle	200	0.652	0.684	4.9
3034324	26-Jun-03	26-Jun-03	10-Jul-03	RX-187039L-0028	4	1	Middle	200	0.652	0.670	2.8
3034325	26-Jun-03	26-Jun-03	30-Jun-03	RX-187039L-0010	4	1	Bottom	200	0.652	0.686	5.2
3034325	26-Jun-03	26-Jun-03	10-Jul-03	RX-187039L-0010	4	1	Bottom	200	0.652	0.669	2.6
3034326	26-Jun-03	26-Jun-03	30-Jun-03	RX-187039L-0029	4	1	Bottom	200	0.652	0.686	5.2
3034326	26-Jun-03	26-Jun-03	10-Jul-03	RX-187039L-0029	4	1	Bottom	200	0.652	0.669	2.6

PERCENT DIFFERENCE CALCULATION

Absolute value (((Estimated Concentration-Measured Concentration)/Estimated Concentration)*100)

SUMMARY OF ANALYTICAL RESULTS

CONCENTRATION OF CALCIUM IN TS03018 SUSPENSIONS

Stability Study

ILT AIMS #	Date Prepared	Date Sampled	Date Analyzed	WIL Research Sample #	WIL Research Group #	WIL Research Accession #	Aliquot Phase	Estimated Concentration TS03018, mg/mL	Estimated Concentration wt% Ca	Measured Concentration, wt% Ca	Percent Difference, %
3034327	26-Jun-03	26-Jun-03	30-Jun-03	RX-187039L-0011	5	1	Top	12	0.066	0.067	1.5
3034327	26-Jun-03	26-Jun-03	10-Jul-03	RX-187039L-0011	5	1	Top	12	0.066	0.066	0.0
3034328	26-Jun-03	26-Jun-03	30-Jun-03	RX-187039L-0030	5	1	Top	12	0.066	0.068	3.0
3034328	26-Jun-03	26-Jun-03	10-Jul-03	RX-187039L-0030	5	1	Top	12	0.066	0.066	0.0
3034329	26-Jun-03	26-Jun-03	30-Jun-03	RX-187039L-0012	5	1	Middle	12	0.066	0.068	3.0
3034329	26-Jun-03	26-Jun-03	10-Jul-03	RX-187039L-0012	5	1	Middle	12	0.066	0.068	3.0
3034330	26-Jun-03	26-Jun-03	30-Jun-03	RX-187039L-0031	5	1	Middle	12	0.066	0.067	1.5
3034330	26-Jun-03	26-Jun-03	10-Jul-03	RX-187039L-0031	5	1	Middle	12	0.066	0.066	0.0
3034331	26-Jun-03	26-Jun-03	30-Jun-03	RX-187039L-0013	5	1	Bottom	12	0.066	0.069	4.5
3034331	26-Jun-03	26-Jun-03	10-Jul-03	RX-187039L-0013	5	1	Bottom	12	0.066	0.066	0.0
3034332	26-Jun-03	26-Jun-03	30-Jun-03	RX-187039L-0032	5	1	Bottom	12	0.066	0.067	1.5
3034332	26-Jun-03	26-Jun-03	10-Jul-03	RX-187039L-0032	5	1	Bottom	12	0.066	0.065	1.5
3034333	26-Jun-03	26-Jun-03	30-Jun-03	RX-187039L-0014	6	1	Top	50	0.274	0.271	1.1
3034333	26-Jun-03	26-Jun-03	10-Jul-03	RX-187039L-0014	6	1	Top	50	0.274	0.267	2.6
3034334	26-Jun-03	26-Jun-03	30-Jun-03	RX-187039L-0033	6	1	Top	50	0.274	0.276	0.7
3034334	26-Jun-03	26-Jun-03	10-Jul-03	RX-187039L-0033	6	1	Top	50	0.274	0.270	1.5
3034335	26-Jun-03	26-Jun-03	30-Jun-03	RX-187039L-0015	6	1	Middle	50	0.274	0.277	1.1
3034335	26-Jun-03	26-Jun-03	10-Jul-03	RX-187039L-0015	6	1	Middle	50	0.274	0.271	1.1
3034336	26-Jun-03	26-Jun-03	30-Jun-03	RX-187039L-0034	6	1	Middle	50	0.274	0.274	0.0
3034336	26-Jun-03	26-Jun-03	10-Jul-03	RX-187039L-0034	6	1	Middle	50	0.274	0.269	1.8
3034337	26-Jun-03	26-Jun-03	30-Jun-03	RX-187039L-0016	6	1	Bottom	50	0.274	0.278	1.5
3034337	26-Jun-03	26-Jun-03	10-Jul-03	RX-187039L-0016	6	1	Bottom	50	0.274	0.274	0.0
3034338	26-Jun-03	26-Jun-03	30-Jun-03	RX-187039L-0035	6	1	Bottom	50	0.274	0.276	0.7
3034338	26-Jun-03	26-Jun-03	10-Jul-03	RX-187039L-0035	6	1	Bottom	50	0.274	0.271	1.1
3034339	26-Jun-03	26-Jun-03	30-Jun-03	RX-187039L-0017	7	1	Top	200	1.08	1.08	0.0
3034339	26-Jun-03	26-Jun-03	10-Jul-03	RX-187039L-0017	7	1	Top	200	1.08	1.07	0.9
3034340	26-Jun-03	26-Jun-03	30-Jun-03	RX-187039L-0036	7	1	Top	200	1.08	1.09	0.9
3034340	26-Jun-03	26-Jun-03	10-Jul-03	RX-187039L-0036	7	1	Top	200	1.08	1.07	0.9
3034341	26-Jun-03	26-Jun-03	30-Jun-03	RX-187039L-0018	7	1	Middle	200	1.08	1.09	0.9
3034341	26-Jun-03	26-Jun-03	10-Jul-03	RX-187039L-0018	7	1	Middle	200	1.08	1.07	0.9
3034342	26-Jun-03	26-Jun-03	30-Jun-03	RX-187039L-0037	7	1	Middle	200	1.08	1.06	1.9
3034342	26-Jun-03	26-Jun-03	10-Jul-03	RX-187039L-0037	7	1	Middle	200	1.08	1.06	1.9
3034343	26-Jun-03	26-Jun-03	30-Jun-03	RX-187039L-0019	7	1	Bottom	200	1.08	1.09	0.9
3034343	26-Jun-03	26-Jun-03	10-Jul-03	RX-187039L-0019	7	1	Bottom	200	1.08	1.08	0.0
3034344	26-Jun-03	26-Jun-03	30-Jun-03	RX-187039L-0038	7	1	Bottom	200	1.08	1.08	0.0
3034344	26-Jun-03	26-Jun-03	10-Jul-03	RX-187039L-0038	7	1	Bottom	200	1.08	1.10	1.9

PERCENT DIFFERENCE CALCULATION

Absolute value (((Estimated Concentration-Measured Concentration)/Estimated Concentration)*100)

SUMMARY OF ANALYTICAL RESULTS

CONCENTRATION OF CALCIUM IN TS03017 SUSPENSIONS

Concentration Study

ILY AIMS #	Date Prepared	Date Sampled	Date Analyzed	WIL Research Sample #	WIL Research Group #	WIL Research Accession #	Aliquot Phase	Estimated Concentration TS03017, mg/mL	Estimated Concentration wt% Ca	Measured Concentration, wt% Ca	Percent Difference, %
3038567	08-Jul-03	08-Jul-03	17-Jul-03	RX-187039L-0058	1	2	Middle	0	0.000	<0.7 wt ppm	*
3038568	08-Jul-03	08-Jul-03	17-Jul-03	RX-187039L-0059	2	2	Middle	12	0.039	0.041	5.1
3038569	08-Jul-03	08-Jul-03	17-Jul-03	RX-187039L-0060	3	2	Middle	50	0.164	0.175	6.7
3038570	08-Jul-03	08-Jul-03	17-Jul-03	RX-187039L-0061	4	2	Middle	200	0.652	0.665	2.0
3037600	08-Jul-03	14-Jul-03	22-Jul-03	RX-187039L-0072	1	2	Middle	0	0.000	<0.7 wt ppm	*
3037601	08-Jul-03	14-Jul-03	22-Jul-03	RX-187039L-0073	2	2	Middle	12	0.039	0.040	2.6
3037602	08-Jul-03	14-Jul-03	22-Jul-03	RX-187039L-0074	3	2	Middle	50	0.164	0.168	2.4
3037603	08-Jul-03	14-Jul-03	22-Jul-03	RX-187039L-0075	4	2	Middle	200	0.652	0.645	1.1
3037607	14-Jul-03	14-Jul-03	22-Jul-03	RX-187039L-0086	1	3	Middle	0	0.000	<0.7 wt ppm	*
3037608	14-Jul-03	14-Jul-03	22-Jul-03	RX-187039L-0087	2	3	Middle	12	0.039	0.040	2.6
3037609	14-Jul-03	14-Jul-03	22-Jul-03	RX-187039L-0088	3	3	Middle	50	0.164	0.168	2.4
3037610	14-Jul-03	14-Jul-03	22-Jul-03	RX-187039L-0089	4	3	Middle	200	0.652	0.633	2.9
3038391	14-Jul-03	21-Jul-03	25-Jul-03	RX-187039L-0100	1	3	Middle	0	0.000	<0.7 wt ppm	*
3038392	14-Jul-03	21-Jul-03	25-Jul-03	RX-187039L-0101	2	3	Middle	12	0.039	0.041	5.1
3038393	14-Jul-03	21-Jul-03	25-Jul-03	RX-187039L-0102	3	3	Middle	50	0.164	0.172	4.9
3038394	14-Jul-03	21-Jul-03	25-Jul-03	RX-187039L-0103	4	3	Middle	200	0.652	0.668	2.5
3038398	21-Jul-03	21-Jul-03	25-Jul-03	RX-187039L-0107	1	4	Middle	0	0.000	<0.7 wt ppm	*
3038399	21-Jul-03	21-Jul-03	25-Jul-03	RX-187039L-0108	2	4	Middle	12	0.039	0.041	5.1
3038400	21-Jul-03	21-Jul-03	25-Jul-03	RX-187039L-0109	3	4	Middle	50	0.164	0.172	4.9
3038401	21-Jul-03	21-Jul-03	25-Jul-03	RX-187039L-0110	4	4	Middle	200	0.652	0.665	2.0
3039597	21-Jul-03	29-Jul-03	01-Aug-03	RX-187039L-0114	1	4	Middle	0	0.000	<0.7 wt ppm	*
3039598	21-Jul-03	29-Jul-03	01-Aug-03	RX-187039L-0115	2	4	Middle	12	0.039	0.041	5.1
3039599	21-Jul-03	29-Jul-03	01-Aug-03	RX-187039L-0116	3	4	Middle	50	0.164	0.172	4.9
3039600	21-Jul-03	29-Jul-03	01-Aug-03	RX-187039L-0117	4	4	Middle	200	0.652	0.680	4.3

PERCENT DIFFERENCE CALCULATION
Absolute value (((Estimated Concentration-Measured Concentration)/Estimated Concentration)*100)

*not a significant difference

SUMMARY OF ANALYTICAL RESULTS

CONCENTRATION OF CALCIUM IN TS03018 SUSPENSIONS

Concentration Study

ILT AIMS #	Date Prepared	Date Sampled	Date Analyzed	WIL Research Sample #	WIL Research Group #	WIL Research Accession #	Aliquot Phase	Estimated Concentration TS03018, mg/mL	Estimated Concentration wt% Ca	Measured Concentration, wt% Ca	Percent Difference, %
3036571	08-Jul-03	08-Jul-03	17-Jul-03	RX-187039L-0066	5	2	Middle	12	0.066	0.070	6.1
3036572	08-Jul-03	08-Jul-03	17-Jul-03	RX-187039L-0067	6	2	Middle	50	0.274	0.284	3.6
3036573	08-Jul-03	08-Jul-03	17-Jul-03	RX-187039L-0068	7	2	Middle	200	1.08	1.11	2.8
3037604	08-Jul-03	14-Jul-03	22-Jul-03	RX-187039L-0076	5	2	Middle	12	0.066	0.070	6.1
3037605	08-Jul-03	14-Jul-03	22-Jul-03	RX-187039L-0077	6	2	Middle	50	0.274	0.273	0.4
3037606	08-Jul-03	14-Jul-03	22-Jul-03	RX-187039L-0078	7	2	Middle	200	1.08	1.06	1.9
3037611	14-Jul-03	14-Jul-03	22-Jul-03	RX-187039L-0090	5	3	Middle	12	0.066	0.066	0.0
3037612	14-Jul-03	14-Jul-03	22-Jul-03	RX-187039L-0091	6	3	Middle	50	0.274	0.270	1.5
3037613	14-Jul-03	14-Jul-03	22-Jul-03	RX-187039L-0092	7	3	Middle	200	1.08	1.04	3.7
3038395	14-Jul-03	21-Jul-03	25-Jul-03	RX-187039L-0104	5	3	Middle	12	0.066	0.069	4.5
3038396	14-Jul-03	21-Jul-03	25-Jul-03	RX-187039L-0105	6	3	Middle	50	0.274	0.279	1.8
3038397	14-Jul-03	21-Jul-03	25-Jul-03	RX-187039L-0106	7	3	Middle	200	1.08	1.08	0.0
3038402	21-Jul-03	21-Jul-03	25-Jul-03	RX-187039L-0111	5	4	Middle	12	0.066	0.069	4.5
3038403	21-Jul-03	21-Jul-03	25-Jul-03	RX-187039L-0112	6	4	Middle	50	0.274	0.289	5.5
3038404	21-Jul-03	21-Jul-03	25-Jul-03	RX-187039L-0113	7	4	Middle	200	1.08	1.11	2.8
3039601	21-Jul-03	29-Jul-03	01-Aug-03	RX-187039L-0118	5	4	Middle	12	0.066	0.070	6.1
3039602	21-Jul-03	29-Jul-03	01-Aug-03	RX-187039L-0119	6	4	Middle	50	0.274	0.290	5.8
3039603	21-Jul-03	29-Jul-03	01-Aug-03	RX-187039L-0120	7	4	Middle	200	1.08	1.09	0.9

PERCENT DIFFERENCE CALCULATION

Absolute value (((Estimated Concentration-Measured Concentration)/Estimated Concentration)*100)

SUMMARY OF ANALYTICAL RESULTS

CONCENTRATION OF CALCIUM IN SP 7077 VARIANT SUSPENSIONS

Duplicate Analysis

ILT AIMS #	Date Prepared	Date Sampled	Date Analyzed	WIL Research Sample #	WIL Research Group #	WIL Research Accession #	Aliquot Phase	Estimated Concentration Test substance, mg/mL	Estimated Concentration wt% Ca	Measured Concentration, wt% Ca	Relative Percent Difference, %
3034318	26-Jun-03	26-Jun-03	30-Jun-03	RX-187039L-0025	3	1	Middle	TS03017 - 50	0.164	0.171	
3034318-Dup	26-Jun-03	26-Jun-03	30-Jun-03	RX-187039L-0025	3	1	Middle	TS03017 - 50	0.164	0.169	1.2
3034319	26-Jun-03	26-Jun-03	10-Jul-03	RX-187039L-0007	3	1	Bottom	TS03017 - 50	0.164	0.171	
3034319-Dup	26-Jun-03	26-Jun-03	10-Jul-03	RX-187039L-0007	3	1	Bottom	TS03017 - 50	0.164	0.170	0.6
3034344	26-Jun-03	26-Jun-03	30-Jun-03	RX-187039L-0038	7	1	Bottom	TS03018 - 200	1.08	1.08	
3034344-Dup	26-Jun-03	26-Jun-03	30-Jun-03	RX-187039L-0038	7	1	Bottom	TS03018 - 200	1.08	1.09	0.9
3034344	26-Jun-03	26-Jun-03	10-Jul-03	RX-187039L-0038	7	1	Bottom	TS03018 - 200	1.08	1.10	
3034344-Dup	26-Jun-03	26-Jun-03	10-Jul-03	RX-187039L-0038	7	1	Bottom	TS03018 - 200	1.08	1.07	2.8
3036568	08-Jul-03	08-Jul-03	17-Jul-03	RX-187039L-0059	2	2	Middle	TS03017 - 12	0.039	0.041	
3036568-Dup	08-Jul-03	08-Jul-03	17-Jul-03	RX-187039L-0059	2	2	Middle	TS03017 - 12	0.039	0.041	0.0
3037605	08-Jul-03	14-Jul-03	25-Jul-03	RX-187039L-0077	6	2	Middle	TS03018 - 50	0.274	0.273	
3037605-Dup	08-Jul-03	14-Jul-03	25-Jul-03	RX-187039L-0077	6	2	Middle	TS03018 - 50	0.274	0.273	0.0
3038399	21-Jul-03	21-Jul-03	25-Jul-03	RX-187039L-0108	2	4	Middle	TS03017 - 12	0.039	0.041	
3038399-Dup	21-Jul-03	21-Jul-03	25-Jul-03	RX-187039L-0108	2	4	Middle	TS03017 - 12	0.039	0.041	0.0
3039602	21-Jul-03	29-Jul-03	01-Aug-03	RX-187039L-0119	6	4	Middle	TS03018 - 50	0.274	0.290	
3039602-Dup	21-Jul-03	29-Jul-03	01-Aug-03	RX-187039L-0119	6	4	Middle	TS03018 - 50	0.274	0.288	0.7

RELATIVE PERCENT DIFFERENCE CALCULATION

Absolute value (((First Measured Concentration-Duplicate Measured Concentration)/((First Measured Concentration+Duplicate Measured Cocnentration)/2))*100)

APPENDIX C

Animal Room Environmental Conditions

PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
TEMPERATURE/HUMIDITY - DAILY SUMMARY REPORT BY STUDY

STUDY SPECIFICATIONS: 187039

DATE IN: 06/26/03 TIME IN: 11:00
DATE OUT: 07/30/03 TIME OUT: 11:00

ROOM SPECIFICATIONS: B ROOM 36
SPECIES: RAT

LOW TEMPERATURE °F: 66.0 HIGH TEMPERATURE °F: 76.0 LOW HUMIDITY: 30.0
LOW TEMPERATURE °C: 18.9 HIGH TEMPERATURE °C: 24.4 HIGH HUMIDITY: 70.0

DATE	TEMPERATURE MEAN (°F)	TEMPERATURE MEAN (°C)	HUMIDITY MEAN (%RH)
26-Jun-03	70.8	21.5	54.6
27-Jun-03	70.8	21.5	54.5
28-Jun-03	70.8	21.6	54.6
29-Jun-03	70.8	21.5	55.3
30-Jun-03	70.7	21.5	55.3
01-Jul-03	70.7	21.5	55.2
02-Jul-03	70.7	21.5	55.2
03-Jul-03	70.8	21.5	55.4
04-Jul-03	70.7	21.5	55.0
05-Jul-03	70.8	21.6	55.0
06-Jul-03	70.8	21.5	55.3
07-Jul-03	70.8	21.5	56.1
08-Jul-03	70.7	21.5	55.3
09-Jul-03	70.8	21.6	55.4
10-Jul-03	70.7	21.5	55.7
11-Jul-03	70.7	21.5	55.3
12-Jul-03	70.8	21.5	55.1
13-Jul-03	70.7	21.5	55.3
14-Jul-03	70.8	21.5	55.3
15-Jul-03	70.7	21.5	55.8
16-Jul-03	70.7	21.5	55.2
17-Jul-03	70.7	21.5	55.2
18-Jul-03	70.7	21.5	55.4

NOTE: + = VALUE WAS GREATER THAN HIGH RANGE
- = VALUE WAS LESS THAN LOW RANGE
NOTE: MEANS REPRESENT THE MEAN OF THE DAILY VALUES

REPORT 4
VERSION 1.07
8/12/03 08:31

PUBERTAL ASSAY OF SP 7077 VARIANT TS03017 & TS03018 IN RATS
TEMPERATURE/HUMIDITY - DAILY SUMMARY REPORT BY STUDY

STUDY SPECIFICATIONS: 187039

DATE IN: 06/26/03 TIME IN: 11:00
DATE OUT: 07/30/03 TIME OUT: 11:00

ROOM SPECIFICATIONS: B ROOM 36
SPECIES: RAT

LOW TEMPERATURE °F: 66.0 HIGH TEMPERATURE °F: 76.0 LOW HUMIDITY: 30.0
LOW TEMPERATURE °C: 18.9 HIGH TEMPERATURE °C: 24.4 HIGH HUMIDITY: 70.0

	TEMPERATURE		HUMIDITY
DATE	MEAN (°F)	MEAN (°C)	MEAN (%RH)
19-Jul-03	70.8	21.5	55.0
20-Jul-03	70.8	21.6	55.2
21-Jul-03	70.7	21.5	55.3
22-Jul-03	70.7	21.5	55.8
23-Jul-03	70.7	21.5	54.4
24-Jul-03	70.8	21.5	53.2
25-Jul-03	70.8	21.6	53.5
26-Jul-03	70.7	21.5	54.1
27-Jul-03	70.8	21.5	54.4
28-Jul-03	70.7	21.5	54.4
29-Jul-03	70.7	21.5	55.1
30-Jul-03	71.0	21.6	55.0

GRAND STATS	MEAN	MIN	MAX
TEMPERATURE °F	70.8	70.7	71.0
TEMPERATURE °C	21.5	21.5	21.6
HUMIDITY (%RH)	55.0	53.2	56.1
N DAYS	35		

NOTE: + = VALUE WAS GREATER THAN HIGH RANGE
- = VALUE WAS LESS THAN LOW RANGE
NOTE: MEANS REPRESENT THE MEAN OF THE DAILY VALUES

REPORT 4
VERSION 1.07
8/12/03 08:31

ROOM SPECIFICATIONS:	B ROOM 36				
SPECIES:	RAT				
LOW TEMPERATURE:	66.0	DATE IN:	06/26/03		
HIGH TEMPERATURE:	76.0	TIME IN:	11:00		
LOW HUMIDITY:	30.0	DATE OUT:	07/30/03		
HIGH HUMIDITY:	70.0	TIME OUT:	11:00	TEMPERATURE	HUMIDITY

ROOM B ROOM 36 SUMMARY

MEAN	70.8	55.0
MIN	69.6	49.1
MAX	72.1	66.1
SD	0.23	1.19
N SAMPLES	816	816
FIRST DAY	06/26/03	
LAST DAY	07/30/03	
N DAYS	35	

NOTE: TEMPERATURE UNITS = DEGREES FAHRENHEIT
HUMIDITY UNITS = % RELATIVE HUMIDITY
NOTE: MEANS REPRESENT THE MEAN OF ALL VALUES

STUDY 187039 SUMMARY

MEAN	70.8	55.0
MIN	69.6	49.1
MAX	72.1	66.1
SD	0.23	1.19
N SAMPLES	816	816
FIRST DAY	06/26/03	
LAST DAY	07/30/03	
N DAYS	35	

NOTE: TEMPERATURE UNITS = DEGREES FAHRENHEIT
HUMIDITY UNITS = % RELATIVE HUMIDITY
NOTE: MEANS REPRESENT THE MEAN OF ALL VALUES

APPENDIX D

eproductive Historical Control Data [Crl:CD®(SD)IGS BR Rats]

eproductive Historical Control Data
Crl:CD®(SD)IGS BR Rats

GRAND MEAN SUMMARY
PARENTAL AND NEONATAL OBSERVATIONS

ENDPOINT	Mean	SD	Min	Max	25th Quartile	75th Quartile
MEAN NO. PUPS BORN	14.2	1.02	12.0	16.3	13.4	15.0
PUP SURVIVAL INDICES (PND)						
BIRTH-4 (BEFORE SELECTION)	96.2	2.05	91.3	99.3	95.3	97.6
DAYS 4-21 (AFTER SELECTION)	98.9	1.45	95.4	100	98.7	100.0
MEAN PUP WEIGHTS (g) MALE (PND)						
DAY 1	7.0	0.23	6.5	7.4	6.8	7.1
DAY 4 (BEFORE SELECTION)	9.9	0.57	8.6	10.7	9.5	10.4
DAY 7	15.4	1.67	11.7	17.8	15.1	16.6
DAY 14	31.0	3.91	22.5	36.5	28.0	33.6
DAY 21	48.6	6.05	34.9	58	45.3	52.9
MEAN PUP WEIGHTS (g) FEMALE (PND)						
DAY 1	6.6	0.22	6.1	6.9	6.4	6.7
DAY 4 (BEFORE SELECTION)	9.3	0.54	8.1	10	9.0	9.7
DAY 7	14.6	1.60	11	16.8	14.1	15.9
DAY 14	29.7	3.82	21.2	34.7	26.6	32.2
DAY 21	46.4	5.70	33.3	54.8	43.6	50.7
ANOGENITAL DISTANCE (PND 1)						
MALE	5.3	0.32	4.8	5.7	5.3	5.3
FEMALE	3.2	0.43	2.7	3.9	3.1	3.3
MEAN BALANOPREPUTIAL SEPARATION (PND)	44.7	2.18	41.6	49	43.2	46.4
MEAN BODY WEIGHT AT ACQUISITION	227.8	11.70	210.5	248	221.7	230.8
MEAN VAGINAL PATENCY (PND)	33.3	1.68	31.9	38.8	32.5	33.3
MEAN BODY WEIGHT AT ACQUISITION	111.5	6.36	102.8	119.5	106.5	118.0

APPENDIX E

Study Protocol

June 19, 2003

PROTOCOL

A FEMALE PUBERTAL ASSAY OF SP 7077 VARIANT (TS03017) AND SP 7077 VARIANT (TS03018) ADMINISTERED ORALLY IN JUVENILE FEMALE RATS

Sponsor Study Number: 03-024

Submitted To:

I. Objective: The objective of this study is to evaluate the ability of the test articles to induce effects on pubertal development in the intact juvenile female rat.

II. Personnel Involved in the Study:

III. **Study Schedule:**

Proposed Animal Receipt Date:	June 26, 2003
Proposed Experimental Start Date:	July 8, 2003
Proposed Experimental Termination Date:	July 30, 2003
Proposed Audited Report Date:	September 12, 2003

IV. **Test Article Data:**

A. Identification:	SP 7077 Variant (TS03017)
1. Lot Number:	TS03017
2. Purity:	100%
3. Stability:	The test article is considered to be stable under the storage conditions provided by the Sponsor.

4. Physical Description:	Dark brown, grease-like solid. May be heated to 40-60°C to lower viscosity and facilitate mixing.
5. Storage Conditions:	Store at ambient conditions.
6. Reserve Samples:	Reserve samples of the test article will be taken in accordance with standard operating procedures and stored in the Archives indefinitely unless otherwise specified.
7. Personnel Safety Data:	To be provided by the Sponsor. It is the responsibility of the Sponsor to notify the testing facility of any special handling requirements for the test article. A material safety data sheet (MSDS) should accompany the test article upon arrival at the laboratory.
B. Identification:	SP 7077 Variant (TS03018)
1. Lot Number:	TS03018
2. Purity:	100%
3. Stability:	The test article is considered to be stable under the storage conditions provided by the Sponsor.
4. Physical Description:	Dark brown, opaque, very viscous liquid.
5. Storage Conditions:	Store at ambient conditions.
6. Reserve Samples:	Reserve samples of the test article will be taken in accordance with standard operating procedures and stored in the Archives at indefinitely unless otherwise specified.
7. Personnel Safety Data:	To be provided by the Sponsor. It is the responsibility of the Sponsor to notify the testing facility of any special handling requirements for the test article. A material

safety data sheet (MSDS) should accompany the test article upon arrival at the laboratory.

V. Test System:

A. Species:	Rat.
B. Strain:	Sprague-Dawley Crl:CD®(SD)IGS BR.
C. Source:	Charles River Laboratories Portage, Michigan
D. Number on Study:	105 Females (maximum of 130 females and 13 dams purchased). Immature females will be supplied in litters of 10 animals with their own or another (fostering) dam. The immature females will be 8-10 days old upon receipt. Animals not assigned to the study will be transferred to the stock animal colony or will be euthanized by carbon dioxide inhalation and the carcasses discarded.
E. Body Weight Range:	At randomization: 30-50 g. All animals assigned to study will be approximately ± 5 g of the mean.
F. Age:	At start of dosing animals will be 22 days of age.
G. Identification System:	The maternal animals will be uniquely identified by a Monel® metal eartag displaying the animal number. The pups will be identified by tail tattoo. Individual cage cards will be affixed to each cage and will display the animal number, group number, study number, dosage level and sex of the animal.
H. Justification for Selection:	This species and strain of animal is recognized as appropriate for reproduction studies. reproductive historical control data in this species and strain of rat. This animal model

has been proven to be susceptible to the effects of reproductive toxicants.

VI. Specific Maintenance Schedule:

A. Animal Housing:

All animals will be initially housed by litter with their own or another (fostering) dam in plastic maternity cages containing ground corncob nesting material (Bed-O'Cobs®). Following randomization, the juvenile female animals will be weaned and housed three animals per cage in plastic maternity (shoebox) cages. The cage bedding will be changed at least three times each week. The cages will be subjected to routine cleaning at a frequency consistent with maintaining good animal health and WIL standard operating procedures. The facilities at(: fully accredited by the Association for Assessment and Accreditation of Laboratory Animal Care International (AAALAC International).

B. Environmental Conditions:

Controls will be set to maintain an average daily temperature of 71 ± 5°F (22 ± 3°C) and an average daily relative humidity of 50 ± 20%. Temperature and relative humidity will be monitored continuously. Data for these two parameters will be scheduled for automatic collection on an hourly basis. Fluorescent lighting controlled by light timers will provide illumination for a 12-hour light/dark photoperiod. Temporary adjustments to the light/dark cycles may be made to accommodate protocol-specified activities. The ventilation rate will be set at a minimum of 10 room air changes per hour, 100% fresh air.

C. Drinking Water:

Reverse osmosis-purified water will be available *ad libitum*. Filters servicing the automatic watering system are changed regularly according to dard operating procedures. The municipal water supplying the laboratory is analyzed according to WIL standard operating procedures on a routine basis to assure that contaminants are not present in concentrations that would be expected to affect the outcome of the study.

D. Basal Diet:

PMI Nutrition International, LLC Certified Rodent LabDiet® 5002 will be offered *ad libitum* during the study. Periodic analyses of the certified feed are performed by the manufacturer to ensure that heavy metals and pesticides are not present at concentrations that would be expected to affect the outcome of the

study. Results of the analyses are provided to WIL Research Laboratories, Inc. by the manufacturer and will be placed in the study records. Feeders will be changed and sanitized once per week.

VII. Experimental Design:

A. Animal Receipt and Quarantine:

Each animal will be inspected by a qualified technician upon receipt. Rats judged to be in good health and suitable as test animals will be immediately placed in quarantine for a minimum of nine days. All rats will be initially sexed and weighed. Maternal animals will be permanently identified with a metal ear tag, and juvenile animals will be identified by tail tattoo. During the quarantine period, each rat will be observed twice daily for changes in general appearance and behavior. Prior to the start of the in-life phase, those animals judged to be suitable test subjects will be identified and receive a detailed physical examination at the time of animal selection for randomization.

B. Randomization:

At the conclusion of the quarantine period (animals 21 days of age), animals judged to be suitable test subjects and meeting acceptable body weight requirements, will be assigned at random using a computer program. At that time, the animal numbers and corresponding body weights will be entered into the Toxicology Data Management System (WTDMS™). A printout containing the animal numbers and individual group assignments will be generated based on body weight stratification into a block design. Animals will then be weaned and arranged into the groups according to the printout. Each of 7 groups will consist of fifteen females. If after randomization statistically significant differences between groups exist, new randomizations will be generated until group mean body weights are homogeneous.

C. Route and Rationale of Test Article Administration:

The route of administration will be oral (gavage). Historically, this route has been used extensively for studies of this nature. Appropriate-sized steel, ball-tipped, flexible Teflon® dosing cannulae will be used for the oral administration by gavage. Any losses, or incomplete dosing will be recorded.

D. Organization of Test Groups, Dosage Levels and Treatment Regimen:

1. Organization of Test Groups:

The dosage levels were determined from the results of previous studies and were provided by the Sponsor Representative after consultation with the Study Director. The following table presents the study group arrangement.

Group Number	Test Article	Dosage Level (mg/kg/day)	Dose Concentration (mg/ml)	Dose Volume (ml/kg)	Number of Females
1	Corn Oil	0	0	5	15
2	TS03017	60	12	5	15
3	TS03017	250	50	5	15
4	TS03017	1000	200	5	15
5	TS03018	60	12	5	15
6	TS03018	250	50	5	15
7	TS03018	1000	200	5	15

2. Vehicle Control Article:

Corn oil.

3. Treatment Regimen:

The test and control articles will be administered as single daily doses beginning on day 22 of age and continuing through 41 days of age. All animals will be dosed at approximately the same time each day, and the time of dosing will be recorded for each animal.

4. Adjustment of Dosages:

Individual doses will be calculated based on each daily body weight to provide the proper dosage. Individual animal body weights and individual animal dosages will be recorded.

E. Preparation and Analysis of Test Article Formulations:

1. Method and Frequency of Preparation:

Based on the physical characteristics of the test article, appropriate methods will be used to ensure the best possible formulations of the test article in the vehicle. Dosing formulations of the test article will be prepared weekly. The study director or the deputy director or designee will visually inspect the

formulations prior to initiation of dosing. This visual inspection will be performed to assure that the formulations are visibly homogeneous and acceptable for dosing. Any special procedures required for formulation will be documented according to Good Laboratory Practices and presented in the final report of this study.

2. **Homogeneity and Stability of Test Article Formulation:**

Dosing mixture homogeneity will be collected prior to the initiation of test article administration. While undergoing stirring in the beaker, the following sample aliquots (5 mL) will be drawn for analysis: control, three aliquots (from the middle); all treatment groups, nine aliquots (3 each from the top, middle and bottom). Two of the three samples will be sent to

analysis of homogeneity and stability over a ten-day period. The samples will be shipped under ambient conditions. The remaining sample from each dose level and strata will be stored under normal laboratory conditions for possible future analysis.

3. **Concentration Analysis:**

Samples of the dosing mixtures will be collected on the first and last day of each weekly preparation. At each time point, two 5-mL aliquots will be taken from each dose level (middle stratum), including the control group. The dosing mixture will be thoroughly mixed before taking each sample. One sample from each dose level will be analyzed; the remaining sample will be retained by the Testing Laboratory for possible future analysis.

Dosing mixture samples for homogeneity, stability and concentration of the test article at all dose levels, including the control, will be analyzed by the Sponsor. The methods employed will be one or more of the following:

Concentration and stability data will be evaluated using percent difference. The acceptable tolerance between the theoretical and measured values is 15%.

Mixtures will be considered homogeneous if the difference between the overall group mean and the strata mean is 10% or less.

4. Sample Handling and Shipment:

Each 5-mL sample will be placed in a glass vial with a Teflon-lined lid. The vial plus sample weight will be recorded with an accuracy of ± 0.0005 g. Each sample will be stored at ambient temperature. Each sample container will be labeled with the following information:

Accession Number
Sponsor's Reference Number
Testing Laboratory Study Number
Test Article Name
Dose Level (mg/kg)
Dosing Mixture Concentration (mg/mL)
Preparation Date
Sampling Date
Weight of Sample

The sample shall be packed in a suitable container to maintain the temperature conditions specified in Section IV.A.5. and B.5. during transit plus an adequate margin of safety for any transit delays. The sample shall be

s notification shall include test article and study identification, carrier, and estimated time/date of arrival. Sample shipments shall be accompanied by an inventory sheet describing the samples contained in the shipment with the information described above.

F. General Observations During the Experimental Period:

1. Clinical Signs:

The rats will be observed twice daily for appearance, behavior, moribundity and mortality. A detailed physical examination will be conducted at the time of randomization. Clinical observations regarding general appearance and behavior will be recorded daily prior to dosing. During the treatment period, the rats will be observed also approximately one hour following dosing and

the observations will be recorded. Additional post-dosing observation periods may be necessary and will be documented in the study records. Observations shall include, but are not limited to, evaluations for changes in appearance of the skin and fur, eyes and mucous membranes, respiratory, circulatory, autonomic and central nervous system functions, somatomotor activity and behavior patterns. Observations will be recorded.

2. **Body Weights:**

Daily body weights will be recorded individually (to the nearest 0.1 gram PND 22-42, with the exception of the weight collected the day prior to dosing and the final body weight) beginning one day prior to the start of dosing. Final body weights will be collected prior to euthanasia.

3. **Vaginal Perforation:**

Each female pup (15/group) will be observed daily for vaginal perforation beginning on PND 25 as described by Adams et al.[1] Examination of the females will continue daily until vaginal perforation is present. The body weight of each female will be recorded on the day of acquisition of vaginal perforation.

4. **Determination of Estrous Cycles:**

Daily vaginal smears will be performed to determine the stage of estrus beginning on the day vaginal perforation is observed. Smearing will continue through the day of necropsy. The mean age of first estrous will be determined.

G. Euthanasia:

On PND 42, the animals will be euthanized by carbon dioxide inhalation, and the time of euthanasia will be recorded for each animal. Any animals not expected to survive until the following dosing period or until the scheduled euthanasia will be euthanized as described above.

VIII. <u>Anatomic Pathology</u>:

A. Macroscopic Examination:

A complete necropsy examination will be conducted on all animals dying spontaneously or euthanized *in extremis*. This will include examination of the external surface, all orifices, the external surface of the brain and spinal cord and the thoracic, abdominal and pelvic cavities including viscera. A complete

necropsy will not be conducted on animals surviving to study termination. The following tissues will be collected and placed in 10% neutral-buffered formalin:

Ovaries	Uterine Horns (Four sections per horn)
Cervix and Uterine Body (Two sections)	Vagina
Thyroid	All gross (internal) lesions

B. Organ Weights:

1. Uterine Weights:

Wet and blotted uterine weights will be measured for all animals surviving to the scheduled necropsy. Uterine weights will not be collected for any animals found dead or euthanized *in extremis*.

The uterus will be harvested from all animals using the following procedure. The harvesting of uteri will be performed in the same sequence as which dosing occurred. The pubic symphysis will be opened and each ovary and uterine horn will be detached from the dorsal abdominal wall. The ovaries are separated from the uterine horns at the oviduct/uterus junction. The urinary bladder and ureters will be removed from the ventral and lateral side of the uterus and vagina. The fibrous adhesion between the rectum and vagina is then detached until the junction of the vaginal orifice and perineal skin is identified. The uterus and vagina are detached from the body by incising the vaginal wall just above the junction between the perineal skin. The excess fat and adnexa will be trimmed away. The vagina is then removed from the uterus, leaving the cervix intact and attached to the uterus for uterus weight measurement. Care is to be taken during uterus harvesting such that the luminal contents are retained. A record will be made if any luminal contents are lost. The uterus will be transferred to a uniquely marked and tared plastic Petri dish with care to avoid desiccation before weighing. The Petri dish should be lined with saline-moistened filter paper (or equivalent) and covered to minimize desiccation.

The uterus harvesting and weighing procedure will be done in the order described below.

1. Animal is euthanized and uterus harvested.
2. Uterus (with luminal fluid) is immediately transferred to a Petri dish (lined with saline-moistened filter paper or equivalent) that was tared immediately prior to the transfer.
3. The uterus' wet weight is recorded to the nearest 0.1 mg.
4. The uterus is opened and blotted (see below).

5. The uterus is placed in a Petri dish (lined with saline-moistened filter paper or equivalent) that was tared immediately prior to the transfer.
6. The uterus' blotted weight is recorded to the nearest 0.1 mg.

Immediately following collection of the wet weight, the uterus will be individually processed by opening the uterine wall and carefully blotting the excess fluid. Both uterine horns will be pierced and cut longitudinally with small surgical scissors, placed on filter paper (ex. Whatman No. 3) and gently pressed with another piece of dry filter paper to absorb the luminal fluid. The procedure will not be so severe as to render the tissue unacceptable for histopathologic analysis, as this additional investigation may be performed at the discretion of the Sponsor (by protocol amendment).

2. **Ovary, Liver, Pituitary and Adrenal Weights:**

The following organs from all females euthanized at scheduled termination will be weighed (to the nearest 0.1 mg):

Ovaries
Liver
Pituitary gland
Adrenal glands

To minimize systematic bias in the weighing procedures, organ harvesting and weighing procedures will be divided as equally as possible among the prosecting and weighing technicians, such that all animals from a group are not processed by a single individual.

C. Microscopic Examination:

Following collection of wet uterine weight, blotting of the uterus and collection of blotted uterine weight, each uterus will be placed in a uniquely identified jar of 10% neutral-buffered formalin and preserved for possible microscopic examination. The vagina, ovaries, and thyroid from each animal will be similarly preserved with the uterus.

Microscopic examination of hematoxylin-eosin stained paraffin sections may be performed on the following tissues from all animals at the discretion of the Sponsor (additional cost).

Ovaries	Uterine Horns (Four sections per horn)
Cervix and Uterine Body (Two sections)	Vagina (Two sections)
Thyroid	All gross (internal) lesions

IX. Duration of Study:

The conduct of this study will require approximately five weeks for acclimation, dosing and necropsy.

X. Statistical Methods:

Body weights, body weight gains, organ weights, uterine weights (wet and blotted), luminal fluid weights, mean days of acquisition of vaginal perforation, mean age of first estrous and estrous cycle length will be analyzed by a parametric one-way analysis of variance (ANOVA)[2] to determine intergroup difference. If the results of the ANOVA are significant ($p<0.05$), Dunnett's test[3] will be applied to the data to compare the treated groups to the control group.

XI. Quality Assurance:

The study will be audited by the WIL Quality Assurance Unit while in progress to assure compliance with the study protocol and protocol amendments, WIL standard operating procedures and the appropriate provisions of EPA/TSCA and FIFRA Good Laboratory Practice Standards published in the Federal Register (40 CFR Part 792 and 40 CFR Part 160) and the OECD Good Laboratory Practice Regulations [C (97) 186/Final]. The raw data and draft report will be audited by th _ _uality Assurance Unit prior to submission to the Sponsor Representative to assure that the final report accurately describes the conduct and the findings of the study.

This study will be included on the WIL master list of regulated studies.

XII. Records to be Maintained:

All original raw data records, as defined by WIL SOPs and the applicable GLPs, will be stored as described in Section XIII. in the Archives at WIL Research Laboratories, Inc.

XIII. Work Product:

The Sponsor will have title to all documentation records, raw data, slides, specimens and other work product generated during the performance of the study. All work product, including raw paper data, pertinent electronic storage media and specimens will be returned to the Sponsor after a period of six months or following issuance of the final report. All work product will be stored in compliance with regulatory requirements.

Any work product, including documents, specimens, and samples, that are required by this protocol, its amendments, or other written instructions of the

Sponsor, to be shipped b nother location will be appropriately packaged and labeled as defined b)Ps and delivered to a common carrier for shipment. l not be responsible for shipment following delivery to the common carrier.

XIV. Reports:

The final report will consist of an abbreviated summary report, including data tables and an interpretation and discussion of the study results.

ill provide one copy of an audited draft report, submitted in a timely manner upon completion of the study prior to issuance of the final report. One revision will be permitted as part of the cost of the study, from which the Sponsor's reasonable revisions and suggestions will be incorporated into the final report, as appropriate. Additional changes or revisions may be made, at extra cost. It is expected that the Sponsor will review the draft report and provide comments t ithin a two-month time frame following submission. will submit the final report within one month following receipt of comments. Two copies of the final report (1 unbound, 1 PDF electronic copy on CD) will be provided. Requests for additional copies of the final report may result in additional charges.

XV. Animal Welfare Act Compliance:

This study will comply with all applicable sections of the Final Rules of the Animal Welfare Act regulations (9 CFR Parts 1, 2 and 3). The Sponsor should make particular note of the following:

- The Sponsor Representative's signature on this protocol documents for the Study Director the Sponsor's assurance that the study described in this protocol does not unnecessarily duplicate previous experiments.
- Whenever possible, procedures used in this study have been designed to avoid or minimize discomfort, distress or pain to animals. All methods are described in this study protocol or in written laboratory standard operating procedures.
- Animals that experience severe or chronic pain or distress that cannot be relieved will be painlessly euthanized as deemed appropriate by the veterinary staff and Study Director. The Sponsor will be advised by the Study Director of all circumstances which could lead to this action in as timely a manner as possible.
- Methods of euthanasia used during this study are in conformance with the above-referenced regulation.

XVI. Protocol Modification:

Modification of the protocol may be accomplished during the course of this investigation. However, no changes will be made in the study design without the written permission of the Sponsor. In the event that the Sponsor requests or approves a change in the protocol, such changes will be made by appropriate documentation in the form of protocol amendment. All alterations of the protocol and reasons for the modification(s) will be signed by the Study Director and the Sponsor Representative.

XVII. References:

1. Adams, J., Buelke-Sam, J., Kimmel, C.A., Nelson, C.J., Reiter, L.W., Sobotka, T.J., Tilson, H.A. and Nelson, B.K. (1985) Collaborative behavioral teratology study: Protocol design and testing procedure. Neurobehav. Toxicol. Teratol. 7: 579-586.

2. Snedecor, G.W. and Cochran, W.G. (1980) One Way Classifications; Analysis of variance. In: Statistical Methods, Seventh Edition. The Iowa State University Press, Ames, IA. pp. 215-237.

3. Dunnett, C.W. (1964) New tables for multiple comparisons with a control. Biometrics, 20:482-491.

XVIII. Protocol Approval:

Sponsor approval received via **e-mail** on **June 13, 2003.**

FINAL ABBREVIATED REPORT

STUDY TITLE

A FEMALE PUBERTAL ASSAY OF SP 7077 (TS01010)
ADMINISTERED ORALLY IN JUVENILE FEMALE RATS

STUDY NUMBER

STUDY DIRECTOR

SANITIZED (Non-CBI)

STUDY INITIATION DATE

April 8, 2003

STUDY COMPLETION DATE

November 11, 2003

PERFORMING LABORATORY

SPONSOR STUDY NUMBER

03-002

SPONSOR

COMPLIANCE STATEMENT

This study, designated WIL-187032, was conducted in compliance with the United States Environmental Protection Agency (EPA) Good Laboratory Practice Standards (40 CFR Part 160), October 16, 1989; the United States Environmental Protection Agency (EPA) Good Laboratory Practice Standards (40 CFR Part 792), September 18, 1989; the Organisation for Economic Cooperation and Development (OECD) Principles of Good Laboratory Practice [C (97) 186/Final], November 26, 1997; the standard operating procedures o and the protocol as approved by the sponsor.

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1. SUMMARY

1.1. OBJECTIVE

The objective of the study was to evaluate the ability of the test article to induce effects on pubertal development in the intact juvenile female rat.

1.2. STUDY DESIGN

SP 7077 (TS01010), in the vehicle, Mazola® corn oil, was administered orally by gavage once daily for 20 consecutive days to three groups of 15 Crl:CD®(SD)IGS BR immature female rats. Dosage levels were 30, 150 and 500 mg/kg/day, and the dose volume was 5 mL/kg. A concurrent control group received the vehicle on a comparable regimen. These dosage levels were determined from the results of previous studies and were provided by the sponsor representative after consultation with the WIL study director.

Dosing procedures were performed from April 22 through May 11, 2003, when the animals were 22 to 41 days of age. At the initiation of dose administration, body weights ranged from 30.8 to 47.6 g. The following table presents the study group assignment:

Group Number	Test Article	Dosage Level (mg/kg/day)	Dose Concentration (mg/mL)	Dose Volume (mL/kg)	Number of Females
1	Corn Oil	0	0	5	15
2	TS01010	30	6	5	15
3	TS01010	150	30	5	15
4	TS01010	500	100	5	15

Preparation, storage and sampling of the control and test article formulations were conducted as follows. For the control group, the appropriate amount of the vehicle was dispensed into a storage container and stirred throughout use. The SP 7077 (TS01010) dosing formulations were prepared by weighing an appropriate amount of test article for each group into a tared, calibrated storage container. A stir bar and approximately 80% of the vehicle were added to the storage container, and the mixture was stirred until uniform. The formulations were heated in a water bath (53°C to 59°C). The appropriate

volume of vehicle was added to bring each formulation to the calibration mark, and the preparations were stirred until uniform and throughout use. The SP 7077 (TS01010) dosing formulations were prepared weekly, divided into aliquots for daily dispensation and stored at room temperature. Three samples from the control group and three sets of samples from the test article formulations were collected prior to the initiation of dose administration. Two sets of samples for concentration verification were collected on the day of preparation and two sets were collected on the last day of use of each preparation. Two sets of homogeneity/stability samples and three sets of concentration samples were shipped under ambient conditions to the sponsor for homogeneity, stability and concentration analyses; the remaining samples were stored under normal laboratory conditions at WIL Research Laboratories, Inc., for possible future analysis.

Eight dams with 13 or 14 female pups each (111 pups total) were received from Charles River Laboratories, Inc., Portage, Michigan, on April 10, 2003. The pups were 10 days old upon receipt. Pups were initially housed in plastic maternity cages (by litter with their own or a fostering dam) during the acclimation period (12 days) until randomization of the pups on postnatal day (PND) 21. Following randomization, the female pups were weaned and housed three per cage in plastic maternity cages. Environmental controls were set to maintain an average daily temperature of 71±5°C and an average daily relative humidity of 50±20%. Actual mean daily temperatures ranged from 70.6°-70.9°F (21.5°-21.6°C) and mean daily relative humidity ranged from 33.4%-52.8%. Light timers were calibrated to provide a 12-hour light (6 a.m. to 6 p.m.)/12-hour dark photoperiod. Air handling units were set to provide approximately 10 fresh air changes per hour. PMI Nutrition International, LLC, Certified Rodent LabDiet® 5002 and reverse-osmosis-purified water were offered *ad libitum*.

All animals were observed twice daily for appearance, behavior, mortality and moribundity. A detailed physical examination was performed at the time of randomization. The rats were also observed daily (prior to dosing) and approximately 1 hour following dose administration. Individual body weights were recorded daily.

Each female pup was observed daily for vaginal patency beginning on PND 25 as described by Adams, *et al.*[1] Examination continued daily until vaginal patency was observed. Body weights were recorded on the day that vaginal patency was noted. Beginning on the day that vaginal patency was observed, vaginal lavages were performed daily, through the day of euthanasia, and the slides were examined to determine the stage of estrus. The mean estrous cycle length was calculated. The average cycle length was calculated and reported for complete estrous cycles *(i.e.*, the total number of returns to metestrus [M] or diestrus [D] from estrus [E] or proestrus [P] until the day of euthanasia), beginning on the day vaginal patency was observed. Estrous cycle length was determined by counting the number of days from the first M or D in a cycle to the first M or D in a subsequent cycle. In addition, the mean age at the onset of the first estrous cycle was calculated using the first day each animal was observed to be in estrus. All animals were euthanized on PND 42 by carbon dioxide inhalation. The uterus (wet and blotted), ovaries, liver, pituitary gland and adrenal glands were weighed. Luminal fluid weight was calculated by subtracting the blotted uterus weight from the wet uterus weight. A gross necropsy was not performed. The ovaries, uterus (horns and body), cervix, vagina, thyroid glands and gross lesions were retained for possible microscopic examination.

Statistical tests were performed using appropriate computing devices or programs. Analyses were conducted using two-tailed tests for minimum significance levels of 1% and 5%, comparing each test article-treated group to the control group. Each mean was presented with the standard deviation (S.D.) and the number of animals (N) used to calculate the mean. Statistical analyses were not conducted if the number of animals was two or less. Only one female in the control group had a complete estrous cycle; therefore, statistical analysis could not be performed on mean estrous cycle length data. Mean body weights, body weight changes, days of acquisition of vaginal patency, age at the first occurrence of estrus, luminal fluid weights and absolute and relative organ weights were subjected to a parametric one-way analysis of variance (ANOVA)[2] to

determine intergroup differences. If the ANOVA revealed statistically significant ($p<0.05$) intergroup variance, Dunnett's test[3] was used to compare the test article-treated groups to the control group.

1.3. RESULTS

All animals survived to the scheduled euthanasia. Salivation was noted for 12 animals in the 500 mg/kg/day group 1 hour following dose administration during PND 32-41; clear material around the mouth was noted once in a single animal in this group on PND 27. There were no clinical findings at the daily observations.

There were no statistically significant differences in mean body weights or body weight changes in the test article-treated groups. Mean body weight gain in the 500 mg/kg/day group was slightly reduced (8.8%) compared to the control group values when the entire treatment period (PND 22-42) was evaluated. Mean body weight in this group was 6.5% lower than the control group value on PND 42. These reductions were attributed to the test article. Mean body weights in the 30 and 150 mg/kg/day groups were unaffected by test article administration throughout the study.

Vaginal patency was achieved earlier in the 30, 150 and 500 mg/kg/day groups than in the control group. The differences were statistically significant ($p<0.01$). Mean days of acquisition were 36.5, 33.9, 28.2 and 28.5 days in the control, 30, 150 and 500 mg/kg/day groups, respectively. The values in the 150 and 500 mg/kg/day groups were below the minimum mean value in the WIL historical control data (31.9 days). Since the females were younger on the day that vaginal patency was observed, mean body weights on the day of acquisition in these groups were also lower (statistically significant at $p<0.05$ or $p<0.01$) than the control group value. These differences were attributed to the test article. No differences in mean estrous cycle length were observed when comparing the test article-treated groups to the control group. However, only one female in the control group had a complete estrous cycle. The values in the 30, 150 and 500 mg/kg/day groups were similar to the control group values in other pubertal assay studies in juvenile female

rats performed by this laboratory. In addition, estrous cycle lengths in females of this age are highly variable, and combined with the limited number of animals and days of evaluation, evidence of a test article-related effect was inconclusive. The mean ages at the first occurrence of estrus in the 30, 150 and 500 mg/kg/day groups were earlier (statistically significant at $p<0.05$ or $p<0.01$) than in the control group.

Test article-related reductions in mean absolute and relative (to final body weight) ovary weights were observed in the 500 mg/kg/day group; the difference from the control group for the absolute ovary weight was statistically significant ($p<0.05$). Mean absolute and relative uterus (wet and blotted) weights in the 500 mg/kg/day group were also reduced (not statistically significant) compared to the control group values. The reductions in mean uterine weights were attributed to the test article; however, they were not considered indicative of estrogen modulation. The reductions in mean uterine weights, in the presence of early achievement of vaginal patency and occurrence of the first estrus and decreases in mean ovary weights, is inconsistent with estrogenicity. Mean luminal fluid weight in the 500 mg/kg/day group was similar to that in the control group. Mean absolute and relative liver and adrenal gland weights in the 30, 150 and 500 mg/kg/day groups were increased (generally statistically significant at $p<0.05$ or $p<0.01$ in the 500 mg/kg/day group) compared to the control group values. These increases were considered test article-related. No other test article-related or statistically significant differences in organ weights were observed in the test article-treated groups.

1.4. CONCLUSIONS

Based on the results of this study, the test article, SP 7077 (TS01010), administered orally to juvenile female rats exhibited estrogenic effects in the 30, 150 and 500 mg/kg/day groups, as evidenced by early achievement of vaginal patency and occurrence of the first estrus and by decreased mean ovary weights (500 mg/kg/day group only).

2. KEY STUDY PERSONNEL AND REPORT SUBMISSION

Study Supervisors:

Report Prepared By:

Report Reviewed By:

8. KEY STUDY PERSONNEL AND REPORT SUBMISSION (CONTINUED)

Report Approved and Submitted By:

3. QUALITY ASSURANCE UNIT STATEMENT

3.1. PHASES INSPECTED

Date(s) of Inspection(s)	Phase Inspected	Date(s) Findings Reported to Study Director	Date(s) Findings Reported to Management
4/22/03	Clinical Observations	4/22/03	5/30/03
7/17/03	Study Records (Rx-1)	7/17/03	8/22/03
7/17/03	Study Records (N-1)	7/17/03	8/22/03
7/18/03	Study Records (I-1)	7/21/03	8/22/03
7/20-21/03	Draft Report	7/21/03	8/22/03

This study was inspected in accordance with the U.S. EPA Good Laboratory Practice Regulations (40 CFR Parts 160 and 792), the OECD Principles of Good Laboratory Practice, the standard operating procedures o ınd the sponsor's protocol and protocol amendments, with the following exceptions. The data located in Appendices A (Certificate of Analysis) and B (Analytical Chemistry Report) were the responsibility of the sponsor. Quality Assurance findings, derived from the inspections during the conduct of the study and from the inspections of the raw data and draft report, are documented and have been reported to the study director. A status report is submitted to management monthly.

This report accurately reflects the data generated during the study. The methods and procedures used in the study were those specified in the protocol, its amendments and the standard operating procedures c

The raw data, the retention sample(s), if applicable, and the final report will be stored in the Archives another location specified by the sponsor.

3.2. APPROVAL

This study was inspected according to the criteria discussed in Section 3.1.

Report Audited By:

Report Released By:

4. REFERENCES

1. Adams, J.; Buelke-Sam, J.; Kimmel, C.A.; Nelson, C.J.; Reiter, L.W.; Sobotka, T.J.; Tilson, H.A.; Nelson, B.K. Collaborative behavioral teratology study: protocol design and testing procedure. *Neurobehavioral Toxicology and Teratology* **1985,** *7,* 579-586.

2. Snedecor, G.W.; Cochran, W.G. One Way Classifications; Analysis of Variance. In *Statistical Methods*, 7th ed.; The Iowa State University Press: Ames, IA, **1980**; pp 215-237.

3. Dunnett, C.W. New tables for multiple comparisons with a control. *Biometrics* **1964,** *20,* 482-491.

5. DEVIATIONS FROM THE PROTOCOL

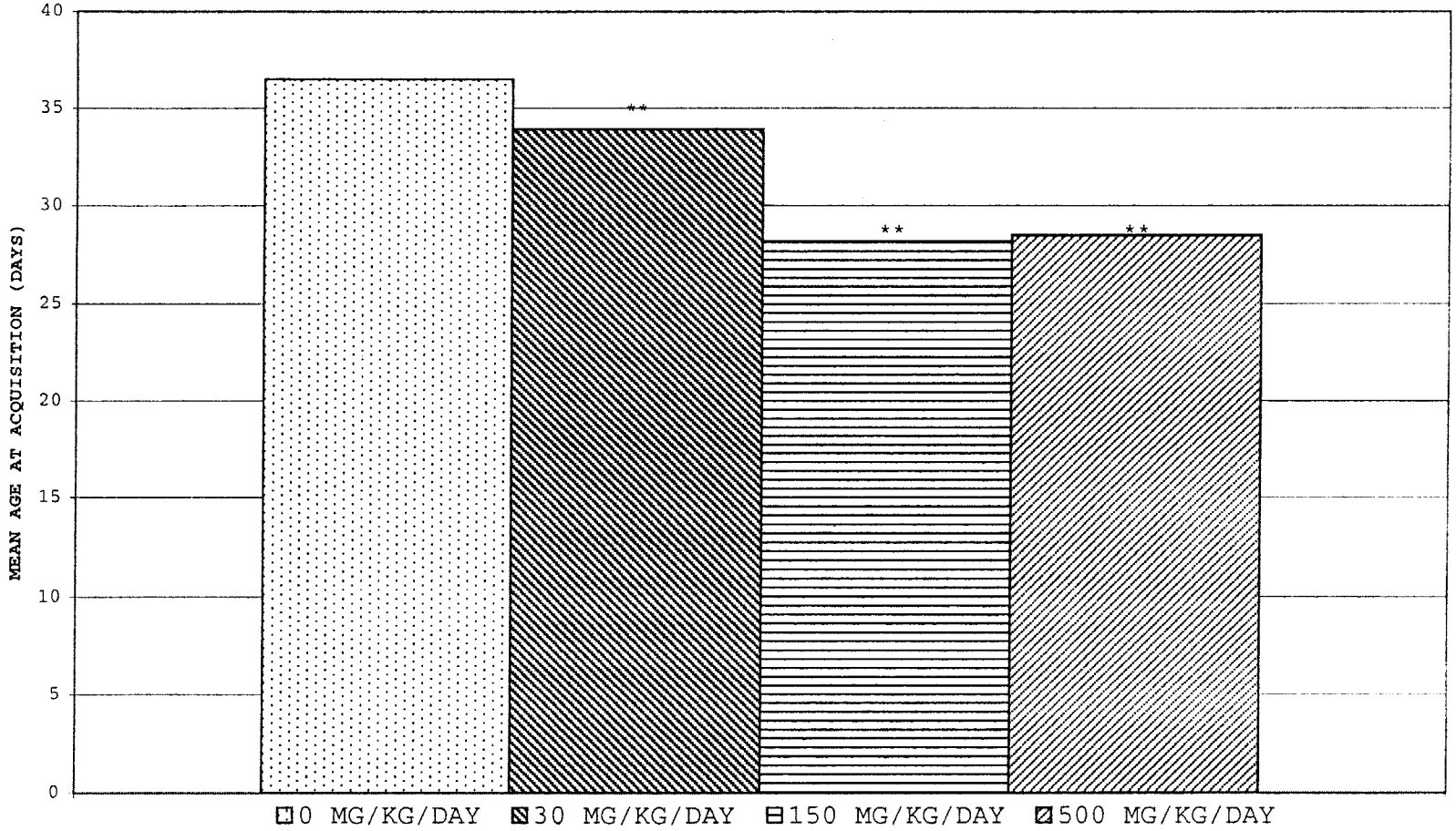
This study was conducted in accordance with the protocol and protocol amendments, except for the following.

- The pups were to be identified by tail tattoo. At the time of receipt, pups were tattooed within each litter using the assigned pup number (*i.e.*, pup no. 1 from dam no. 25288 was tattooed with no. 1). On April 21, 2003, pups were given permanent eartag numbers prior to randomization.
- On May 1, 2003, the observation one hour following dose administration was not performed.
- The time of euthanasia was not recorded for female no. 25293-01 in the 30 mg/kg/day group.
- The wet uterus weight for female no. 25293-08 (150 mg/kg/day group) was not recorded.

These deviations did not negatively impact the quality or integrity of the data nor the outcome of the study.

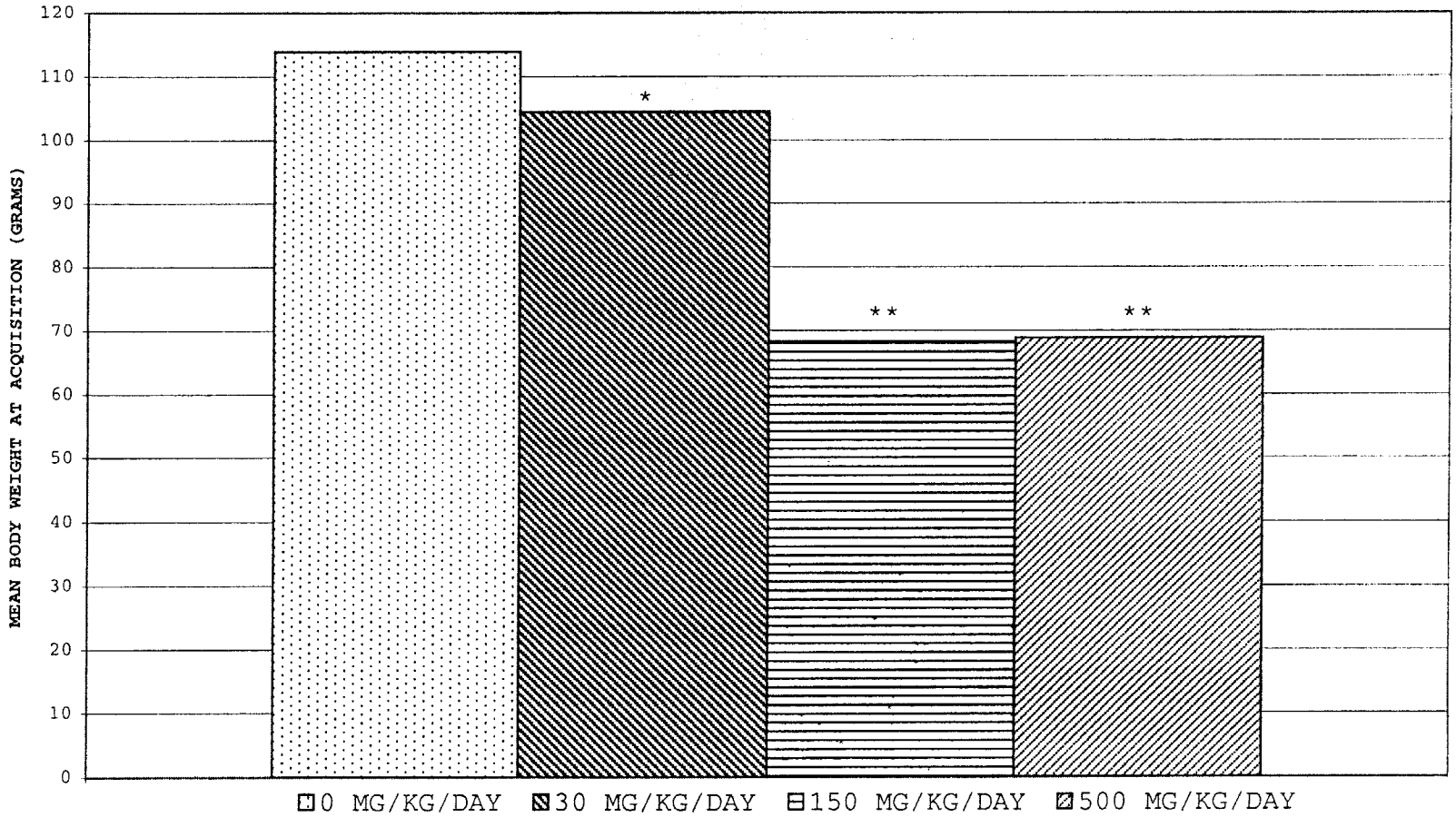
FIGURES 1-3

FIGURE 1
PUBERTAL ASSAY OF SP 7077 (TS01010) IN JUV. FEMALE RATS
MEAN AGE (DAYS) AT ACQUISITION OF VAGINAL PATENCY



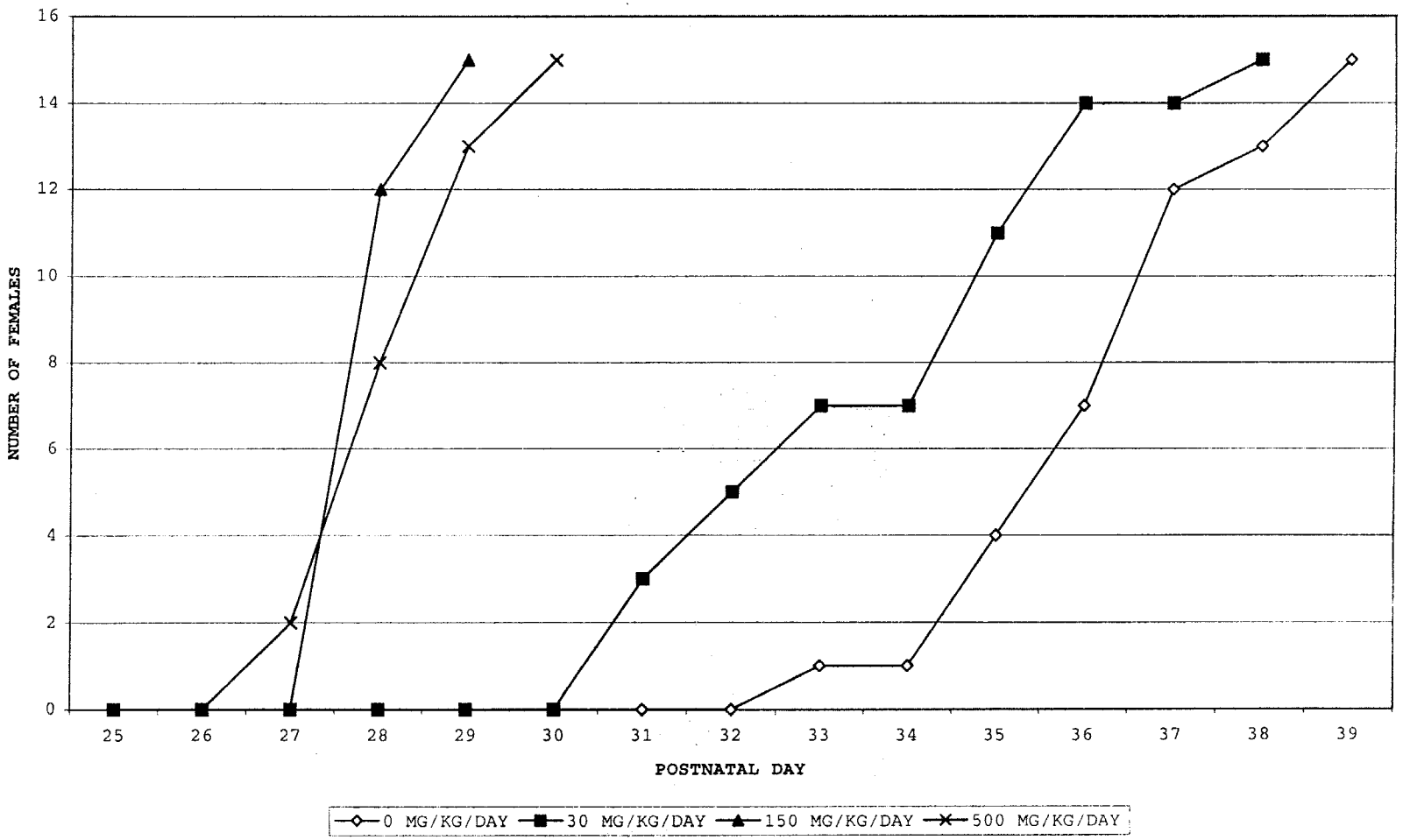
** = Significantly different from the control group at 0.01 using Dunnett's test

FIGURE 2
PUBERTAL ASSAY OF SP 7077 (TS01010) IN JUV. FEMALE RATS
MEAN BODY WEIGHT (GRAMS) AT ACQUISITION OF VAGINAL PATENCY



*, ** = Significantly different from the control group at 0.05 and 0.01, respectively, using Dunnett's test

FIGURE 3
PUBERTAL ASSAY OF SP 7077 (TS01010) IN JUV. FEMALE RATS
NUMBER OF FEMALES WITH VAGINAL PATENCY



TABLES 1-17

TABLE 1
PUBERTAL ASSAY OF SP 7077 (TS01010) IN JUV. FEMALE RATS
SUMMARY OF SURVIVAL AND DISPOSITION

FEMALES

GROUP :	1				2				3				4			
PND	LIVE	FD	EE	SE	LIVE	FD	EE	SE	LIVE	FD	EE	SE	LIVE	FD	EE	SE
22	15	0	0	0	15	0	0	0	15	0	0	0	15	0	0	0
23	15	0	0	0	15	0	0	0	15	0	0	0	15	0	0	0
24	15	0	0	0	15	0	0	0	15	0	0	0	15	0	0	0
25	15	0	0	0	15	0	0	0	15	0	0	0	15	0	0	0
26	15	0	0	0	15	0	0	0	15	0	0	0	15	0	0	0
27	15	0	0	0	15	0	0	0	15	0	0	0	15	0	0	0
28	15	0	0	0	15	0	0	0	15	0	0	0	15	0	0	0
29	15	0	0	0	15	0	0	0	15	0	0	0	15	0	0	0
30	15	0	0	0	15	0	0	0	15	0	0	0	15	0	0	0
31	15	0	0	0	15	0	0	0	15	0	0	0	15	0	0	0
32	15	0	0	0	15	0	0	0	15	0	0	0	15	0	0	0
33	15	0	0	0	15	0	0	0	15	0	0	0	15	0	0	0
34	15	0	0	0	15	0	0	0	15	0	0	0	15	0	0	0
35	15	0	0	0	15	0	0	0	15	0	0	0	15	0	0	0
36	15	0	0	0	15	0	0	0	15	0	0	0	15	0	0	0
37	15	0	0	0	15	0	0	0	15	0	0	0	15	0	0	0
38	15	0	0	0	15	0	0	0	15	0	0	0	15	0	0	0
39	15	0	0	0	15	0	0	0	15	0	0	0	15	0	0	0
40	15	0	0	0	15	0	0	0	15	0	0	0	15	0	0	0
41	15	0	0	0	15	0	0	0	15	0	0	0	15	0	0	0
42	0	0	0	15	0	0	0	15	0	0	0	15	0	0	0	15

PND = POSTNATAL DAY FD = FOUND DEAD EE = EUTHANIZED IN EXTREMIS SE = SCHEDULED EUTHANASIA

1- 0 MG/KG/DAY 2- 30 MG/KG/DAY 3- 150 MG/KG/DAY 4- 500 MG/KG/DAY

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TABLE 2 (DAILY OBSERVATIONS)
PUBERTAL ASSAY OF SP 7077 (TS01010) IN JUV. FEMALE RATS
SUMMARY OF CLINICAL FINDINGS: TOTAL OCCURRENCE/NO. OF ANIMALS

----- F E M A L E -----

TABLE RANGE:	04-22-03 TO 05-12-03			
GROUP:	1	2	3	4
NORMAL				
-NO SIGNIFICANT CLINICAL OBSERVATIONS	315/15	315/15	315/15	315/15
DISPOSITION				
-SCHEDULED EUTHANASIA	15/15	15/15	15/15	15/15

1- 0 MG/KG/DAY 2- 30 MG/KG/DAY 3- 150 MG/KG/DAY 4- 500 MG/KG/DAY

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TABLE 3 (1-HOUR POST-DOSING)
PUBERTAL ASSAY OF SP 7077 (TS01010) IN JUV. FEMALE RATS
SUMMARY OF CLINICAL FINDINGS: TOTAL OCCURRENCE/NO. OF ANIMALS

----- F E M A L E -----

TABLE RANGE:	04-22-03 TO 05-11-03			
GROUP:	1	2	3	4
ORAL/DENTAL				
-WET CLEAR MATERIAL AROUND MOUTH	0/ 0	0/ 0	0/ 0	1/ 1
-SALIVATION	0/ 0	0/ 0	0/ 0	42/12

1- 0 MG/KG/DAY 2- 30 MG/KG/DAY 3- 150 MG/KG/DAY 4- 500 MG/KG/DAY

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TABLE 4
PUBERTAL ASSAY OF SP 7077 (TS01010) IN JUV. FEMALE RATS
SUMMARY OF BODY WEIGHTS [G]

FEMALES

GROUP :		1	2	3	4
DAY 22	MEAN	39.2	39.8	38.7	38.9
	S.D.	3.43	3.96	4.50	3.39
	N	15	15	15	15
DAY 23	MEAN	44.9	44.5	43.6	43.2
	S.D.	3.72	4.40	5.67	4.03
	N	15	15	15	15
DAY 24	MEAN	50.5	51.2	48.9	49.0
	S.D.	3.39	3.93	6.66	3.95
	N	15	15	15	15
DAY 25	MEAN	54.5	55.5	53.6	53.2
	S.D.	3.40	4.29	6.72	3.74
	N	15	15	15	15
DAY 26	MEAN	58.0	59.5	57.7	57.4
	S.D.	3.28	4.18	6.91	3.96
	N	15	15	15	15
DAY 27	MEAN	63.8	64.9	62.5	62.2
	S.D.	3.71	4.24	7.83	4.62
	N	15	15	15	15
DAY 28	MEAN	68.3	70.5	67.4	67.4
	S.D.	3.98	4.79	8.73	4.84
	N	15	15	15	15
DAY 29	MEAN	73.4	75.7	72.3	71.8
	S.D.	3.92	4.70	9.26	4.86
	N	15	15	15	15

1- 0 MG/KG/DAY 2- 30 MG/KG/DAY 3- 150 MG/KG/DAY 4- 500 MG/KG/DAY

None significantly different from control group

TABLE 4
PUBERTAL ASSAY OF SP 7077 (TS01010) IN JUV. FEMALE RATS
SUMMARY OF BODY WEIGHTS [G]

FEMALES

GROUP :		1	2	3	4
DAY 30	MEAN	78.2	80.7	76.8	76.7
	S.D.	4.54	4.87	10.38	5.66
	N	15	15	15	15
DAY 31	MEAN	83.5	86.6	83.0	82.0
	S.D.	4.77	5.24	11.23	5.94
	N	15	15	15	15
DAY 32	MEAN	89.1	92.4	89.3	87.4
	S.D.	4.73	5.52	12.27	6.45
	N	15	15	15	15
DAY 33	MEAN	95.3	99.1	95.0	92.9
	S.D.	5.33	6.19	12.72	7.16
	N	15	15	15	15
DAY 34	MEAN	101.4	105.4	100.5	99.2
	S.D.	5.63	7.10	13.41	8.03
	N	15	15	15	15
DAY 35	MEAN	106.9	111.2	106.5	103.7
	S.D.	6.24	7.37	14.23	8.81
	N	15	15	15	15
DAY 36	MEAN	111.3	116.2	112.0	108.1
	S.D.	5.72	7.86	14.85	9.20
	N	15	15	15	15
DAY 37	MEAN	117.4	122.3	116.9	113.4
	S.D.	6.90	8.08	15.77	10.15
	N	15	15	15	15

1- 0 MG/KG/DAY 2- 30 MG/KG/DAY 3- 150 MG/KG/DAY 4- 500 MG/KG/DAY

None significantly different from control group

TABLE 4
PUBERTAL ASSAY OF SP 7077 (TS01010) IN JUV. FEMALE RATS
SUMMARY OF BODY WEIGHTS [G]

FEMALES

GROUP :		1	2	3	4
DAY 38	MEAN	123.4	128.0	122.9	118.1
	S.D.	7.18	9.44	15.80	10.95
	N	15	15	15	15
DAY 39	MEAN	128.0	131.7	126.6	122.0
	S.D.	7.13	10.12	15.47	11.13
	N	15	15	15	15
DAY 40	MEAN	133.5	137.5	131.7	126.1
	S.D.	7.66	9.72	15.93	11.57
	N	15	15	15	15
DAY 41	MEAN	137.8	140.9	135.8	131.1
	S.D.	8.23	10.17	16.51	12.17
	N	15	15	15	15
DAY 42	MEAN	142.3	146.4	140.8	133.0
	S.D.	6.99	11.25	16.72	12.26
	N	15	15	15	15

1- 0 MG/KG/DAY 2- 30 MG/KG/DAY 3- 150 MG/KG/DAY 4- 500 MG/KG/DAY

None significantly different from control group

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TABLE 5
PUBERTAL ASSAY OF SP 7077 (TS01010) IN JUV. FEMALE RATS.
SUMMARY OF BODY WEIGHT CHANGES [G]

FEMALES

GROUP :		1	2	3	4
DAY 22- 23	MEAN	5.7	4.8	4.9	4.3
	S.D.	0.72	4.10	1.89	1.43
	N	15	15	15	15
DAY 23- 24	MEAN	5.6	6.7	5.3	5.8
	S.D.	0.86	3.41	1.97	1.13
	N	15	15	15	15
DAY 24- 25	MEAN	4.0	4.3	4.7	4.2
	S.D.	0.78	0.67	0.66	1.17
	N	15	15	15	15
DAY 25- 26	MEAN	3.5	4.0	4.1	4.2
	S.D.	1.23	0.87	0.76	0.79
	N	15	15	15	15
DAY 26- 27	MEAN	5.9	5.4	4.8	4.8
	S.D.	1.39	3.21	1.33	1.13
	N	15	15	15	15
DAY 27- 28	MEAN	4.5	5.6	5.0	5.2
	S.D.	0.97	3.59	1.12	1.05
	N	15	15	15	15
DAY 28- 29	MEAN	5.1	5.2	4.9	4.4
	S.D.	1.03	1.01	0.89	0.89
	N	15	15	15	15
DAY 29- 30	MEAN	4.8	5.0	4.5	4.9
	S.D.	1.66	0.68	1.46	1.20
	N	15	15	15	15

1- 0 MG/KG/DAY 2- 30 MG/KG/DAY 3- 150 MG/KG/DAY 4- 500 MG/KG/DAY

None significantly different from control group
MEAN DIFFERENCES CALCULATED FROM INDIVIDUAL DIFFERENCES

TABLE 5
PUBERTAL ASSAY OF SP 7077 (TS01010) IN JUV. FEMALE RATS
SUMMARY OF BODY WEIGHT CHANGES [G]

FEMALES

GROUP :		1	2	3	4
DAY 30- 31	MEAN	5.3	5.9	6.1	5.3
	S.D.	1.19	0.76	1.33	0.98
	N	15	15	15	15
DAY 31- 32	MEAN	5.6	5.8	6.3	5.4
	S.D.	1.61	1.71	1.42	1.51
	N	15	15	15	15
DAY 32- 33	MEAN	6.3	6.7	5.7	5.5
	S.D.	1.63	1.33	1.58	1.27
	N	15	15	15	15
DAY 33- 34	MEAN	6.1	6.3	5.5	6.2
	S.D.	1.82	1.40	1.59	1.60
	N	15	15	15	15
DAY 34- 35	MEAN	5.4	5.8	6.0	4.5
	S.D.	2.67	2.06	1.82	1.95
	N	15	15	15	15
DAY 35- 36	MEAN	4.4	5.1	5.4	4.4
	S.D.	2.40	1.42	1.42	2.23
	N	15	15	15	15
DAY 36- 37	MEAN	6.1	6.1	5.0	5.3
	S.D.	1.76	2.13	2.03	1.80
	N	15	15	15	15
DAY 37- 38	MEAN	6.0	5.7	5.9	4.7
	S.D.	2.17	2.16	2.13	1.70
	N	15	15	15	15

1- 0 MG/KG/DAY 2- 30 MG/KG/DAY 3- 150 MG/KG/DAY 4- 500 MG/KG/DAY

None significantly different from control group
MEAN DIFFERENCES CALCULATED FROM INDIVIDUAL DIFFERENCES

TABLE 5
PUBERTAL ASSAY OF SP 7077 (TS01010) IN JUV. FEMALE RATS
SUMMARY OF BODY WEIGHT CHANGES [G]

FEMALES

GROUP :		1	2	3	4
DAY 38- 39	MEAN	4.7	3.7	3.7	3.9
	S.D.	2.61	2.43	3.44	2.26
	N	15	15	15	15
DAY 39- 40	MEAN	5.5	5.8	5.1	4.1
	S.D.	2.16	2.32	2.54	2.29
	N	15	15	15	15
DAY 40- 41	MEAN	4.3	3.3	4.0	5.0
	S.D.	3.16	2.57	2.73	2.41
	N	15	15	15	15
DAY 41- 42	MEAN	4.5	5.6	5.1	2.0
	S.D.	2.83	3.51	3.14	3.81
	N	15	15	15	15
DAY 22- 42	MEAN	103.2	106.7	102.1	94.1
	S.D.	6.84	10.78	13.98	11.92
	N	15	15	15	15

1- 0 MG/KG/DAY 2- 30 MG/KG/DAY 3- 150 MG/KG/DAY 4- 500 MG/KG/DAY

None significantly different from control group
MEAN DIFFERENCES CALCULATED FROM INDIVIDUAL DIFFERENCES

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TABLE 6
PUBERTAL ASSAY OF SP 7077 (TS01010) IN JUV. FEMALE RATS
SUMMARY OF ANIMAL DEVELOPMENTAL PARAMETERS - VAGINAL PATENCY

FEMALES

GROUP:	1	2	3	4
VAGINAL PATENCY (PND)				
MEAN	36.5	33.9**	28.2**	28.5**
S.D.	1.60	2.22	0.41	0.92
N	15	15	15	15
BODY WEIGHT				
MEAN	113.9	104.5*	68.2**	68.8**
S.D.	7.82	13.85	7.99	3.96
N	15	15	15	15

1- 0 MG/KG/DAY 2- 30 MG/KG/DAY 3- 150 MG/KG/DAY 4- 500 MG/KG/DAY

PND = POSTNATAL DAY
* = Significantly different from the control group at 0.05 using Dunnett's test
** = Significantly different from the control group at 0.01 using Dunnett's test

PJTBBv1.03
05/28/2003
R:05/28/2003

TABLE 7
PUBERTAL ASSAY OF SP 7077 (TS01010) IN JUV. FEMALE RATS
SUMMARY OF ESTROUS CYCLE DATA

	FEMALES			
GROUP:	0 MG/KG/DAY	30 MG/KG/DAY	150 MG/KG/DAY	500 MG/KG/DAY
ESTROUS CYCLE LENGTH (DAYS)-A				
MEAN	5.0	5.2	5.3	4.8
S.D.	0.00	0.42	0.86	0.78
N	1	10	12	11
MEAN AGE AT FIRST OCCURRENCE OF ESTRUS (DAYS)				
MEAN	38.0	34.8*	34.2**	34.2**
S.D.	2.08	2.33	2.54	4.40
N	13	14	15	15

A = UNABLE TO PERFORM STATISTICAL ANALYSES DUE TO INSUFFICIENT NUMBER OF ANIMALS IN CONTROL GROUP
* = Significantly different from the control group at 0.05 using Dunnett's test
** = Significantly different from the control group at 0.01 using Dunnett's test

PCYCv5.06
05/28/2003
R:05/28/2003

TABLE 8
PUBERTAL ASSAY OF SP 7077 (TS01010) IN JUV. FEMALE RATS
SUMMARY OF ORGAN WEIGHTS [G]

	----- F E M A L E -----			
GROUP:	0 MG/KG/DAY	30 MG/KG/DAY	150 MG/KG/DAY	500 MG/KG/DAY
UTERUS- WET (G)				
MEAN	0.3424	0.3695	0.3682	0.2754
S.D.	0.13923	0.19259	0.20512	0.10461
N	15	15	14	15
UTERUS- BLOT. (G)				
MEAN	0.2830	0.2997	0.2917	0.2301
S.D.	0.07997	0.08876	0.09708	0.05258
N	15	15	15	15
LUMINAL FLUID (G)				
MEAN	0.0594	0.0698	0.0702	0.0453
S.D.	0.07499	0.12022	0.12996	0.05686
N	15	15	14	15
LIVER (G)				
MEAN	7.5460	8.0693	7.9340	7.8047
S.D.	1.10266	1.02541	1.55198	0.96837
N	15	15	15	15
OVARIES (G)				
MEAN	0.0769	0.0838	0.0740	0.0628*
S.D.	0.01274	0.01198	0.01446	0.01296
N	15	15	15	15

* = Significantly different from the control group at 0.05 using Dunnett's test

TABLE 8
PUBERTAL ASSAY OF SP 7077 (TS01010) IN JUV. FEMALE RATS
SUMMARY OF ORGAN WEIGHTS [G]

	----- F E M A L E -----			
GROUP:	0 MG/KG/DAY	30 MG/KG/DAY	150 MG/KG/DAY	500 MG/KG/DAY
ADRENAL GLANDS (G)				
MEAN	0.0327	0.0368	0.0370	0.0394**
S.D.	0.00424	0.00704	0.00553	0.00611
N	15	15	15	15
PITUITARY (G)				
MEAN	0.0074	0.0084	0.0075	0.0071
S.D.	0.00209	0.00121	0.00161	0.00067
N	15	15	15	15

** = Significantly different from the control group at 0.01 using Dunnett's test

POFBSTv5.02
05/28/2003
R:07/23/2003

TABLE 9
PUBERTAL ASSAY OF SP 7077 (TS01010) IN JUV. FEMALE RATS
SUMMARY OF ORGAN WTS. RELATIVE TO FINAL BODY WTS. [G/100 G]

		----- F E M A L E -----			
GROUP:		0 MG/KG/DAY	30 MG/KG/DAY	150 MG/KG/DAY	500 MG/KG/DAY
FINAL BODY WT (G)	MEAN	142.	147.	141.	133.
	S.D.	7.0	11.2	16.7	12.4
	N	15	15	15	15
UTERUS- WET	MEAN	0.240	0.259	0.259	0.210
	S.D.	0.0959	0.1502	0.1358	0.0874
	N	15	15	14	15
UTERUS- BLOT.	MEAN	0.198	0.208	0.206	0.174
	S.D.	0.0534	0.0717	0.0585	0.0433
	N	15	15	15	15
LIVER	MEAN	5.291	5.498	5.599	5.857*
	S.D.	0.6280	0.4717	0.6739	0.3561
	N	15	15	15	15
OVARIES	MEAN	0.054	0.057	0.053	0.048
	S.D.	0.0084	0.0092	0.0096	0.0105
	N	15	15	15	15

* = Significantly different from the control group at 0.05 using Dunnett's test

TABLE 9
PUBERTAL ASSAY OF SP 7077 (TS01010) IN JUV. FEMALE RATS
SUMMARY OF ORGAN WTS. RELATIVE TO FINAL BODY WTS. [G/100 G]

GROUP:		0 MG/KG/DAY	----- F E M A L E ----- 30 MG/KG/DAY	150 MG/KG/DAY	500 MG/KG/DAY
ADRENAL GLANDS	MEAN	0.023	0.025	0.026	0.030**
	S.D.	0.0030	0.0051	0.0032	0.0045
	N	15	15	15	15
PITUITARY	MEAN	0.005	0.006	0.005	0.005
	S.D.	0.0013	0.0009	0.0010	0.0005
	N	15	15	15	15

** = Significantly different from the control group at 0.01 using Dunnett's test

POFBSTv5.02
05/28/2003
R:05/28/2003

TABLE 10 (DAILY OBSERVATIONS)
PUBERTAL ASSAY OF SP 7077 (TS01010) IN JUV. FEMALE RATS
INDIVIDUAL CLINICAL OBSERVATIONS [POSITIVE FINDINGS ONLY]

TABLE RANGE: 04-22-03 TO 05-12-03

ANIMAL	SEX	GROUP	CATEGORY	DATE	TIME	GRADE	OBSERVATIONS
25288-08	F	0 MG/KG/DAY	DISPOSITION	05-12-03	9:56	P	SCHEDULED EUTHANASIA
25291-02	F	0 MG/KG/DAY	DISPOSITION	05-12-03	9:56	P	SCHEDULED EUTHANASIA
25291-05	F	0 MG/KG/DAY	DISPOSITION	05-12-03	9:56	P	SCHEDULED EUTHANASIA
25291-08	F	0 MG/KG/DAY	DISPOSITION	05-12-03	9:56	P	SCHEDULED EUTHANASIA
25291-09	F	0 MG/KG/DAY	DISPOSITION	05-12-03	9:56	P	SCHEDULED EUTHANASIA
25292-06	F	0 MG/KG/DAY	DISPOSITION	05-12-03	9:56	P	SCHEDULED EUTHANASIA
25292-11	F	0 MG/KG/DAY	DISPOSITION	05-12-03	9:56	P	SCHEDULED EUTHANASIA
25293-11	F	0 MG/KG/DAY	DISPOSITION	05-12-03	9:56	P	SCHEDULED EUTHANASIA
25293-14	F	0 MG/KG/DAY	DISPOSITION	05-12-03	9:56	P	SCHEDULED EUTHANASIA
25294-05	F	0 MG/KG/DAY	DISPOSITION	05-12-03	9:57	P	SCHEDULED EUTHANASIA
25294-14	F	0 MG/KG/DAY	DISPOSITION	05-12-03	9:57	P	SCHEDULED EUTHANASIA
25295-05	F	0 MG/KG/DAY	DISPOSITION	05-12-03	9:57	P	SCHEDULED EUTHANASIA
25295-08	F	0 MG/KG/DAY	DISPOSITION	05-12-03	9:57	P	SCHEDULED EUTHANASIA
25295-10	F	0 MG/KG/DAY	DISPOSITION	05-12-03	9:57	P	SCHEDULED EUTHANASIA
25295-11	F	0 MG/KG/DAY	DISPOSITION	05-12-03	9:57	P	SCHEDULED EUTHANASIA
25288-01	F	30 MG/KG/DAY	DISPOSITION	05-12-03	9:57	P	SCHEDULED EUTHANASIA
25288-09	F	30 MG/KG/DAY	DISPOSITION	05-12-03	9:57	P	SCHEDULED EUTHANASIA
25289-04	F	30 MG/KG/DAY	DISPOSITION	05-12-03	9:57	P	SCHEDULED EUTHANASIA
25289-06	F	30 MG/KG/DAY	DISPOSITION	05-12-03	9:57	P	SCHEDULED EUTHANASIA
25289-12	F	30 MG/KG/DAY	DISPOSITION	05-12-03	9:57	P	SCHEDULED EUTHANASIA
25290-11	F	30 MG/KG/DAY	DISPOSITION	05-12-03	9:57	P	SCHEDULED EUTHANASIA
25291-03	F	30 MG/KG/DAY	DISPOSITION	05-12-03	9:57	P	SCHEDULED EUTHANASIA
25291-04	F	30 MG/KG/DAY	DISPOSITION	05-12-03	9:57	P	SCHEDULED EUTHANASIA
25291-10	F	30 MG/KG/DAY	DISPOSITION	05-12-03	9:57	P	SCHEDULED EUTHANASIA
25292-01	F	30 MG/KG/DAY	DISPOSITION	05-12-03	9:57	P	SCHEDULED EUTHANASIA
25293-01	F	30 MG/KG/DAY	DISPOSITION	05-12-03	9:57	P	SCHEDULED EUTHANASIA
25293-04	F	30 MG/KG/DAY	DISPOSITION	05-12-03	9:57	P	SCHEDULED EUTHANASIA
25293-06	F	30 MG/KG/DAY	DISPOSITION	05-12-03	9:57	P	SCHEDULED EUTHANASIA
25295-01	F	30 MG/KG/DAY	DISPOSITION	05-12-03	9:57	P	SCHEDULED EUTHANASIA

GRADE CODE: 1 - SLIGHT 2 - MODERATE 3 - SEVERE P - PRESENT

TABLE 10 (DAILY OBSERVATIONS)
PUBERTAL ASSAY OF SP 7077 (TS01010) IN JUV. FEMALE RATS
INDIVIDUAL CLINICAL OBSERVATIONS [POSITIVE FINDINGS ONLY]

TABLE RANGE: 04-22-03 TO 05-12-03

ANIMAL	SEX	GROUP	CATEGORY	DATE	TIME	GRADE	OBSERVATIONS
25295-07	F	30 MG/KG/DAY	DISPOSITION	05-12-03	9:57	P	SCHEDULED EUTHANASIA
25288-07	F	150 MG/KG/DAY	DISPOSITION	05-12-03	9:57	P	SCHEDULED EUTHANASIA
25288-10	F	150 MG/KG/DAY	DISPOSITION	05-12-03	9:57	P	SCHEDULED EUTHANASIA
25288-13	F	150 MG/KG/DAY	DISPOSITION	05-12-03	9:57	P	SCHEDULED EUTHANASIA
25289-01	F	150 MG/KG/DAY	DISPOSITION	05-12-03	9:57	P	SCHEDULED EUTHANASIA
25290-02	F	150 MG/KG/DAY	DISPOSITION	05-12-03	9:58	P	SCHEDULED EUTHANASIA
25291-07	F	150 MG/KG/DAY	DISPOSITION	05-12-03	9:58	P	SCHEDULED EUTHANASIA
25292-02	F	150 MG/KG/DAY	DISPOSITION	05-12-03	9:58	P	SCHEDULED EUTHANASIA
25292-07	F	150 MG/KG/DAY	DISPOSITION	05-12-03	9:58	P	SCHEDULED EUTHANASIA
25293-07	F	150 MG/KG/DAY	DISPOSITION	05-12-03	9:58	P	SCHEDULED EUTHANASIA
25293-08	F	150 MG/KG/DAY	DISPOSITION	05-12-03	9:58	P	SCHEDULED EUTHANASIA
25293-09	F	150 MG/KG/DAY	DISPOSITION	05-12-03	9:58	P	SCHEDULED EUTHANASIA
25294-10	F	150 MG/KG/DAY	DISPOSITION	05-12-03	9:58	P	SCHEDULED EUTHANASIA
25294-12	F	150 MG/KG/DAY	DISPOSITION	05-12-03	9:58	P	SCHEDULED EUTHANASIA
25295-06	F	150 MG/KG/DAY	DISPOSITION	05-12-03	9:58	P	SCHEDULED EUTHANASIA
25295-09	F	150 MG/KG/DAY	DISPOSITION	05-12-03	9:58	P	SCHEDULED EUTHANASIA
25289-03	F	500 MG/KG/DAY	DISPOSITION	05-12-03	9:58	P	SCHEDULED EUTHANASIA
25289-08	F	500 MG/KG/DAY	DISPOSITION	05-12-03	9:58	P	SCHEDULED EUTHANASIA
25289-11	F	500 MG/KG/DAY	DISPOSITION	05-12-03	9:58	P	SCHEDULED EUTHANASIA
25289-13	F	500 MG/KG/DAY	DISPOSITION	05-12-03	9:58	P	SCHEDULED EUTHANASIA
25290-03	F	500 MG/KG/DAY	DISPOSITION	05-12-03	9:58	P	SCHEDULED EUTHANASIA
25290-06	F	500 MG/KG/DAY	DISPOSITION	05-12-03	9:58	P	SCHEDULED EUTHANASIA
25291-01	F	500 MG/KG/DAY	DISPOSITION	05-12-03	9:58	P	SCHEDULED EUTHANASIA
25292-04	F	500 MG/KG/DAY	DISPOSITION	05-12-03	9:58	P	SCHEDULED EUTHANASIA
25292-13	F	500 MG/KG/DAY	DISPOSITION	05-12-03	9:58	P	SCHEDULED EUTHANASIA
25293-03	F	500 MG/KG/DAY	DISPOSITION	05-12-03	9:58	P	SCHEDULED EUTHANASIA
25293-05	F	500 MG/KG/DAY	DISPOSITION	05-12-03	9:58	P	SCHEDULED EUTHANASIA
25293-12	F	500 MG/KG/DAY	DISPOSITION	05-12-03	9:58	P	SCHEDULED EUTHANASIA
25294-06	F	500 MG/KG/DAY	DISPOSITION	05-12-03	9:58	P	SCHEDULED EUTHANASIA

GRADE CODE: 1 - SLIGHT 2 - MODERATE 3 - SEVERE P - PRESENT

TABLE 10 (DAILY OBSERVATIONS)
PUBERTAL ASSAY OF SP 7077 (TS01010) IN JUV. FEMALE RATS
INDIVIDUAL CLINICAL OBSERVATIONS [POSITIVE FINDINGS ONLY]

TABLE RANGE: 04-22-03 TO 05-12-03

ANIMAL	SEX	GROUP	CATEGORY	DATE	TIME	GRADE	OBSERVATIONS
25295-02	F	500 MG/KG/DAY	DISPOSITION	05-12-03	9:58	P	SCHEDULED EUTHANASIA
25295-12	F	500 MG/KG/DAY	DISPOSITION	05-12-03	9:58	P	SCHEDULED EUTHANASIA

GRADE CODE: 1 - SLIGHT 2 - MODERATE 3 - SEVERE P - PRESENT

TABLE 11 (1-HOUR POST-DOSING)
PUBERTAL ASSAY OF SP 7077 (TS01010) IN JUV. FEMALE RATS
INDIVIDUAL CLINICAL OBSERVATIONS

TABLE RANGE: 04-22-03 TO 05-11-03

ANIMAL	SEX	GROUP	CATEGORY	DATE	TIME	GRADE	OBSERVATIONS
25289-03	F	500 MG/KG/DAY	ORAL/DENTAL	05-02-03	11:56	1	SALIVATION
				05-04-03	11:45	2	SALIVATION
25289-08	F	500 MG/KG/DAY	ORAL/DENTAL	05-11-03	11:55	2	SALIVATION
25289-11	F	500 MG/KG/DAY	ORAL/DENTAL	05-08-03	11:36	2	SALIVATION
				05-09-03	11:37	1	SALIVATION
25290-03	F	500 MG/KG/DAY	ORAL/DENTAL	05-03-03	11:43	1	SALIVATION
				05-04-03	11:46	1	SALIVATION
				05-07-03	11:43	1	SALIVATION
				05-08-03	11:37	1	SALIVATION
25290-06	F	500 MG/KG/DAY	ORAL/DENTAL	05-11-03	11:55	1	SALIVATION
25291-01	F	500 MG/KG/DAY	ORAL/DENTAL	04-27-03	11:52	1	WET CLEAR MATERIAL AROUND MOUTH
25292-04	F	500 MG/KG/DAY	ORAL/DENTAL	05-03-03	11:43	1	SALIVATION
				05-04-03	11:46	1	SALIVATION
				05-06-03	11:59	1	SALIVATION
				05-08-03	11:38	1	SALIVATION
				05-09-03	11:37	2	SALIVATION
				05-10-03	11:45	1	SALIVATION
				05-11-03	11:56	2	SALIVATION
25292-13	F	500 MG/KG/DAY	ORAL/DENTAL	05-02-03	11:57	1	SALIVATION
				05-09-03	11:37	1	SALIVATION
				05-11-03	11:56	2	SALIVATION
25293-03	F	500 MG/KG/DAY	ORAL/DENTAL	05-06-03	12:00	1	SALIVATION
				05-07-03	11:44	1	SALIVATION
				05-11-03	11:56	1	SALIVATION
25293-12	F	500 MG/KG/DAY	ORAL/DENTAL	05-03-03	11:44	1	SALIVATION
				05-04-03	11:47	1	SALIVATION
				05-06-03	12:00	1	SALIVATION
				05-07-03	11:45	1	SALIVATION
				05-08-03	11:38	2	SALIVATION

GRADE CODE: 1 - SLIGHT 2 - MODERATE 3 - SEVERE P - PRESENT

TABLE 11 (1-HOUR POST-DOSING)
PUBERTAL ASSAY OF SP 7077 (TS01010) IN JUV. FEMALE RATS
INDIVIDUAL CLINICAL OBSERVATIONS

TABLE RANGE: 04-22-03 TO 05-11-03

ANIMAL	SEX	GROUP	CATEGORY	DATE	TIME	GRADE	OBSERVATIONS
25293-12	F	500 MG/KG/DAY	ORAL/DENTAL	05-10-03	11:45	2	SALIVATION
				05-11-03	11:57	1	SALIVATION
25294-06	F	500 MG/KG/DAY	ORAL/DENTAL	05-03-03	11:44	1	SALIVATION
				05-04-03	11:47	1	SALIVATION
				05-07-03	11:46	1	SALIVATION
				05-09-03	11:38	1	SALIVATION
25295-02	F	500 MG/KG/DAY	ORAL/DENTAL	05-04-03	11:48	1	SALIVATION
				05-07-03	11:46	1	SALIVATION
				05-08-03	11:39	1	SALIVATION
				05-09-03	11:38	2	SALIVATION
				05-10-03	11:46	1	SALIVATION
25295-12	F	500 MG/KG/DAY	ORAL/DENTAL	05-07-03	11:46	1	SALIVATION
				05-08-03	11:39	2	SALIVATION
				05-09-03	11:38	2	SALIVATION

GRADE CODE: 1 - SLIGHT 2 - MODERATE 3 - SEVERE P - PRESENT

TABLE 12
PUBERTAL ASSAY OF SP 7077 (TS01010) IN JUV. FEMALE RATS
INDIVIDUAL BODY WEIGHTS [G]

FEMALES

DAY	22	23	24	25	26	27	28	29	30	31
ANIMALS FROM GROUP 1: 0 MG/KG/DAY										
25288-08	44.9	51.0	55.6	59.4	62.9	70.2	74.4	79.3	85.6	90.4
25291-02	36.7	42.5	49.0	53.4	57.7	63.6	68.2	75.0	77.3	82.2
25291-05	39.3	45.5	51.0	54.8	58.4	64.1	70.2	72.8	79.9	86.4
25291-08	37.3	43.2	49.0	52.5	55.4	60.6	64.6	69.0	71.4	77.9
25291-09	37.5	43.6	50.0	53.3	56.3	61.8	65.1	70.0	77.1	81.1
25292-06	37.1	41.9	47.1	50.0	53.9	58.9	64.6	68.7	75.0	78.6
25292-11	34.5	41.1	45.7	49.7	55.4	59.1	63.3	68.8	72.2	76.9
25293-11	42.3	48.1	53.5	58.5	62.9	67.8	73.1	77.7	82.1	89.9
25293-14	39.6	46.0	51.4	55.4	59.2	65.8	69.4	75.4	81.0	85.3
25294-05	44.2	49.8	54.8	58.9	62.2	67.6	73.1	78.4	82.9	89.3
25294-14	33.8	38.2	44.5	50.0	52.3	58.2	61.6	68.3	70.8	76.1
25295-05	43.3	49.0	54.1	59.1	61.9	67.4	72.4	77.9	83.8	87.6
25295-08	36.2	40.7	48.3	53.0	57.1	62.5	67.8	73.2	78.7	84.9
25295-10	40.9	47.6	53.9	56.8	57.0	67.0	70.4	75.3	78.9	84.2
25295-11	39.7	44.8	49.4	52.8	57.1	63.0	66.2	71.0	76.2	81.5
MEAN	39.2	44.9	50.5	54.5	58.0	63.8	68.3	73.4	78.2	83.5
S.D.	3.43	3.72	3.39	3.40	3.28	3.71	3.98	3.92	4.54	4.77
N	15	15	15	15	15	15	15	15	15	15

TABLE 12
PUBERTAL ASSAY OF SP 7077 (TS01010) IN JUV. FEMALE RATS
INDIVIDUAL BODY WEIGHTS [G]

FEMALES

DAY	32	33	34	35	36	37	38	39	40	41
ANIMALS FROM GROUP 1: 0 MG/KG/DAY										
25288-08	97.2	103.7	113.1	114.6	120.2	126.8	127.8	135.2	142.9	144.8
25291-02	88.6	93.9	100.9	103.9	110.0	114.9	120.8	128.4	132.8	139.7
25291-05	91.6	100.2	104.0	108.4	114.9	121.1	126.6	131.0	134.6	142.3
25291-08	82.5	88.7	92.0	97.2	100.5	103.7	109.4	114.8	121.9	124.4
25291-09	88.2	92.4	99.8	106.3	110.4	116.5	121.2	127.1	131.7	137.4
25292-06	84.7	89.5	98.1	102.1	109.1	115.4	122.0	127.8	132.9	137.5
25292-11	81.1	86.3	92.4	93.9	100.0	105.1	108.7	113.2	115.4	119.6
25293-11	92.1	99.9	106.3	108.5	113.7	121.2	125.9	123.5	133.5	141.3
25293-14	93.1	97.3	105.2	115.8	118.0	127.9	134.4	137.5	144.2	150.6
25294-05	92.7	102.4	106.0	113.9	114.3	119.8	128.6	135.7	139.5	141.5
25294-14	82.3	88.7	95.0	101.7	108.8	111.6	118.3	125.3	131.2	137.9
25295-05	94.0	98.7	104.3	110.5	113.8	121.5	126.1	131.7	138.1	139.0
25295-08	91.1	96.9	102.9	110.8	114.6	121.1	130.3	133.6	141.4	142.1
25295-10	88.2	95.0	99.2	107.3	106.4	113.9	121.6	123.6	128.5	126.4
25295-11	88.9	96.5	102.2	108.2	114.1	120.0	128.7	131.9	134.2	142.7
MEAN	89.1	95.3	101.4	106.9	111.3	117.4	123.4	128.0	133.5	137.8
S.D.	4.73	5.33	5.63	6.24	5.72	6.90	7.18	7.13	7.66	8.23
N	15	15	15	15	15	15	15	15	15	15

TABLE 12
PUBERTAL ASSAY OF SP 7077 (TS01010) IN JUV. FEMALE RATS
INDIVIDUAL BODY WEIGHTS [G]

FEMALES

DAY 42

ANIMALS FROM GROUP 1: 0 MG/KG/DAY

25288-08	143.2	SCHED EUTH DAY 42
25291-02	145.7	SCHED EUTH DAY 42
25291-05	144.0	SCHED EUTH DAY 42
25291-08	132.1	SCHED EUTH DAY 42
25291-09	144.9	SCHED EUTH DAY 42
25292-06	142.2	SCHED EUTH DAY 42
25292-11	124.8	SCHED EUTH DAY 42
25293-11	142.1	SCHED EUTH DAY 42
25293-14	151.4	SCHED EUTH DAY 42
25294-05	145.9	SCHED EUTH DAY 42
25294-14	144.0	SCHED EUTH DAY 42
25295-05	146.5	SCHED EUTH DAY 42
25295-08	146.9	SCHED EUTH DAY 42
25295-10	133.2	SCHED EUTH DAY 42
25295-11	147.9	SCHED EUTH DAY 42
MEAN	142.3	
S.D.	6.99	
N	15	

TABLE 12
PUBERTAL ASSAY OF SP 7077 (TS01010) IN JUV. FEMALE RATS
INDIVIDUAL BODY WEIGHTS [G]

FEMALES

DAY	22	23	24	25	26	27	28	29	30	31
ANIMALS FROM GROUP 2: 30 MG/KG/DAY										
25288-01	35.5	42.7	48.0	52.6	56.6	61.8	66.5	72.5	77.7	82.1
25288-09	46.6	37.0	55.8	60.5	63.9	71.3	75.7	80.8	86.2	93.0
25289-04	31.9	36.7	43.3	47.5	50.9	57.3	62.1	66.9	70.9	76.1
25289-06	40.0	46.1	52.7	57.0	61.5	67.0	73.7	79.6	83.6	90.1
25289-12	35.0	41.3	46.3	48.7	52.9	57.1	61.9	66.6	71.1	77.0
25290-11	41.3	47.0	52.0	56.7	61.4	67.4	71.4	77.0	82.0	86.9
25291-03	40.2	46.8	52.0	56.5	61.1	65.6	70.1	74.6	80.2	86.4
25291-04	40.8	47.3	52.7	56.1	60.3	65.9	71.7	75.2	81.1	87.6
25291-10	44.1	50.9	56.5	61.1	65.3	67.3	76.4	81.1	85.8	92.4
25292-01	41.4	46.6	52.6	57.1	59.0	64.9	72.7	79.7	84.8	90.8
25293-01	39.4	44.8	50.4	54.8	58.6	59.7	69.7	74.3	79.6	85.6
25293-04	34.5	38.1	44.8	48.6	53.9	68.9	63.7	71.0	76.5	81.7
25293-06	42.4	46.5	53.5	58.8	62.5	68.6	74.3	79.2	84.9	89.8
25295-01	42.8	49.4	55.0	59.3	62.3	67.4	73.8	78.1	82.0	88.6
25295-07	40.4	46.5	52.4	56.7	61.9	63.6	73.5	78.4	84.3	90.7
MEAN	39.8	44.5	51.2	55.5	59.5	64.9	70.5	75.7	80.7	86.6
S.D.	3.96	4.40	3.93	4.29	4.18	4.24	4.79	4.70	4.87	5.24
N	15	15	15	15	15	15	15	15	15	15

TABLE 12
PUBERTAL ASSAY OF SP 7077 (TS01010) IN JUV. FEMALE RATS
INDIVIDUAL BODY WEIGHTS [G]

FEMALES

DAY	32	33	34	35	36	37	38	39	40	41
ANIMALS FROM GROUP 2: 30 MG/KG/DAY										
25288-01	87.5	93.8	98.5	102.6	107.9	112.3	117.6	119.2	124.7	127.3
25288-09	96.0	103.9	109.6	113.7	118.4	121.9	126.7	127.6	129.2	132.4
25289-04	83.4	88.4	93.9	99.1	102.9	112.3	118.7	121.5	128.8	135.0
25289-06	97.0	104.4	111.2	120.0	124.1	127.6	136.0	140.1	147.3	150.4
25289-12	81.6	87.3	92.7	98.5	103.8	107.5	109.2	114.0	123.0	125.9
25290-11	94.1	99.7	106.2	111.8	118.4	128.3	133.5	140.2	145.1	153.5
25291-03	92.0	99.3	107.5	111.9	115.9	123.5	128.0	133.2	141.8	138.4
25291-04	93.8	99.6	107.5	111.1	116.5	121.4	127.6	133.0	140.2	140.8
25291-10	98.9	106.3	112.8	116.7	125.5	133.3	141.1	144.0	151.8	155.8
25292-01	95.2	102.0	107.0	112.7	116.4	124.2	126.7	132.3	137.6	141.2
25293-01	94.4	98.5	104.2	111.7	117.4	121.4	127.5	130.7	134.1	138.9
25293-04	84.4	92.0	96.5	106.3	110.9	116.2	123.6	126.9	131.6	134.9
25293-06	95.6	102.4	109.6	116.8	121.5	127.3	131.7	139.2	146.2	149.2
25295-01	93.4	100.7	106.4	109.3	112.3	119.5	124.5	122.3	128.9	132.0
25295-07	98.5	108.0	117.5	125.4	131.5	137.6	147.6	151.1	152.5	157.2
MEAN	92.4	99.1	105.4	111.2	116.2	122.3	128.0	131.7	137.5	140.9
S.D.	5.52	6.19	7.10	7.37	7.86	8.08	9.44	10.12	9.72	10.17
N	15	15	15	15	15	15	15	15	15	15

TABLE 12
PUBERTAL ASSAY OF SP 7077 (TS01010) IN JUV. FEMALE RATS
INDIVIDUAL BODY WEIGHTS (G)

FEMALES

DAY 42

ANIMALS FROM GROUP 2: 30 MG/KG/DAY

25288-01	131.1	SCHED EUTH DAY 42
25288-09	134.6	SCHED EUTH DAY 42
25289-04	146.5	SCHED EUTH DAY 42
25289-06	153.0	SCHED EUTH DAY 42
25289-12	127.9	SCHED EUTH DAY 42
25290-11	157.1	SCHED EUTH DAY 42
25291-03	150.5	SCHED EUTH DAY 42
25291-04	145.0	SCHED EUTH DAY 42
25291-10	163.2	SCHED EUTH DAY 42
25292-01	141.8	SCHED EUTH DAY 42
25293-01	146.0	SCHED EUTH DAY 42
25293-04	142.1	SCHED EUTH DAY 42
25293-06	153.5	SCHED EUTH DAY 42
25295-01	137.3	SCHED EUTH DAY 42
25295-07	167.0	SCHED EUTH DAY 42
MEAN	146.4	
S.D.	11.25	
N	15	

TABLE 12
PUBERTAL ASSAY OF SP 7077 (TS01010) IN JUV. FEMALE RATS
INDIVIDUAL BODY WEIGHTS [G]

FEMALES

DAY	22	23	24	25	26	27	28	29	30	31
ANIMALS FROM GROUP 3: 150 MG/KG/DAY										
25288-07	37.2	43.5	50.5	55.4	58.7	63.3	67.5	72.9	77.3	82.4
25288-10	41.0	47.0	50.4	55.8	59.0	64.0	68.9	72.6	77.7	84.0
25288-13	39.9	45.9	52.2	57.1	61.9	66.0	71.4	76.3	81.4	87.9
25289-01	32.2	35.6	43.3	47.0	50.5	55.5	61.6	65.9	70.1	77.3
25290-02	39.3	44.4	49.8	54.5	58.1	63.6	68.4	73.6	77.4	82.4
25291-07	37.5	42.9	48.8	52.4	57.6	62.2	66.7	71.5	76.7	83.3
25292-02	34.4	39.3	45.7	49.5	53.9	59.0	63.4	68.3	72.3	77.8
25292-07	41.0	46.5	52.1	57.2	61.6	67.8	73.3	79.2	84.3	89.2
25293-07	42.0	46.9	51.9	56.8	62.4	67.9	73.9	77.7	84.3	90.5
25293-08	36.4	42.7	47.7	52.4	55.3	60.3	65.6	72.0	74.0	79.7
25293-09	47.6	52.0	57.3	62.7	67.3	74.8	80.7	86.8	92.9	101.8
25294-10	40.4	46.0	51.3	55.0	58.9	62.5	68.2	73.0	76.2	83.8
25294-12	30.8	29.5	28.6	34.1	38.2	39.7	41.3	44.6	46.0	49.3
25295-06	35.9	41.6	47.9	52.4	56.3	61.0	65.5	70.3	75.8	82.9
25295-09	44.9	50.7	56.1	61.2	65.6	69.2	74.8	80.4	86.3	92.2
MEAN	38.7	43.6	48.9	53.6	57.7	62.5	67.4	72.3	76.8	83.0
S.D.	4.50	5.67	6.66	6.72	6.91	7.83	8.73	9.26	10.38	11.23
N	15	15	15	15	15	15	15	15	15	15

TABLE 12
PUBERTAL ASSAY OF SP 7077 (TS01010) IN JUV. FEMALE RATS
INDIVIDUAL BODY WEIGHTS [G]

FEMALES

DAY	32	33	34	35	36	37	38	39	40	41
ANIMALS FROM GROUP 3: 150 MG/KG/DAY										
25288-07	88.3	93.1	98.0	102.0	107.8	114.0	117.4	123.2	130.5	129.7
25288-10	90.5	97.2	101.6	106.7	112.5	116.2	124.0	123.3	132.1	135.2
25288-13	97.3	100.5	110.2	114.5	120.3	129.0	133.6	141.2	148.8	149.3
25289-01	82.1	88.7	93.5	102.0	106.6	112.0	118.8	123.1	126.7	133.5
25290-02	88.8	95.0	100.7	108.7	116.4	122.8	129.4	136.3	142.9	150.2
25291-07	90.6	96.5	103.3	108.7	116.4	121.6	127.6	127.4	136.1	141.4
25292-02	84.6	89.4	94.4	101.9	105.3	108.5	115.8	120.4	123.7	126.4
25292-07	96.3	103.1	106.5	115.5	119.2	123.3	131.8	133.3	132.7	139.0
25293-07	96.6	104.3	110.2	117.0	122.4	126.3	127.7	133.6	138.2	140.7
25293-08	86.1	92.7	98.2	104.3	109.9	114.8	122.6	126.0	129.5	129.5
25293-09	109.9	113.5	118.3	125.4	132.9	140.0	144.3	143.9	149.5	157.5
25294-10	88.7	92.8	99.0	104.5	108.3	110.2	118.6	116.1	122.0	125.9
25294-12	52.6	56.0	59.3	61.7	65.6	68.3	72.7	78.9	82.6	86.6
25295-06	88.9	96.0	101.0	107.2	112.7	120.9	124.9	133.9	139.8	146.4
25295-09	98.3	106.2	113.5	118.1	123.0	126.0	133.7	138.4	141.1	145.2
MEAN	89.3	95.0	100.5	106.5	112.0	116.9	122.9	126.6	131.7	135.8
S.D.	12.27	12.72	13.41	14.23	14.85	15.77	15.80	15.47	15.93	16.51
N	15	15	15	15	15	15	15	15	15	15

TABLE 12
PUBERTAL ASSAY OF SP 7077 (TS01010) IN JUV. FEMALE RATS
INDIVIDUAL BODY WEIGHTS [G]

FEMALES

DAY 42

ANIMALS FROM GROUP 3: 150 MG/KG/DAY

25288-07	135.5	SCHED EUTH DAY 42
25288-10	143.8	SCHED EUTH DAY 42
25288-13	158.2	SCHED EUTH DAY 42
25289-01	135.2	SCHED EUTH DAY 42
25290-02	159.9	SCHED EUTH DAY 42
25291-07	148.9	SCHED EUTH DAY 42
25292-02	131.2	SCHED EUTH DAY 42
25292-07	141.9	SCHED EUTH DAY 42
25293-07	144.2	SCHED EUTH DAY 42
25293-08	134.9	SCHED EUTH DAY 42
25293-09	163.7	SCHED EUTH DAY 42
25294-10	131.8	SCHED EUTH DAY 42
25294-12	92.6	SCHED EUTH DAY 42
25295-06	145.0	SCHED EUTH DAY 42
25295-09	145.8	SCHED EUTH DAY 42
MEAN	140.8	
S.D.	16.72	
N	15	

TABLE 12
PUBERTAL ASSAY OF SP 7077 (TS01010) IN JUV. FEMALE RATS
INDIVIDUAL BODY WEIGHTS [G]

FEMALES

DAY	22	23	24	25	26	27	28	29	30	31
ANIMALS FROM GROUP 4: 500 MG/KG/DAY										
25289-03	38.5	44.1	48.6	53.2	56.4	60.5	66.3	69.6	73.9	79.5
25289-08	35.2	40.6	47.3	51.4	55.6	61.7	67.1	71.6	77.3	82.8
25289-11	35.3	40.4	47.3	53.3	56.8	61.1	67.6	71.4	76.6	80.2
25289-13	34.8	36.2	42.7	48.8	53.3	58.1	64.0	69.6	76.2	82.8
25290-03	34.8	36.9	43.0	45.6	49.1	52.1	56.0	59.9	62.5	67.1
25290-06	39.9	42.0	46.6	49.9	53.1	57.0	62.0	65.5	69.7	74.4
25291-01	45.0	48.8	52.7	56.8	61.2	65.7	69.3	73.7	78.3	82.4
25292-04	39.5	43.5	48.5	53.8	57.4	62.0	67.6	73.5	78.2	83.7
25292-13	37.9	42.0	48.3	50.6	56.3	60.8	67.5	72.1	78.3	83.3
25293-03	40.2	44.9	49.2	54.1	59.1	64.0	67.9	71.5	74.9	80.6
25293-05	41.7	47.6	52.8	56.4	61.5	67.6	72.9	77.7	82.5	87.1
25293-12	38.7	42.8	49.7	53.8	59.0	65.8	69.5	74.9	79.3	86.9
25294-06	44.6	50.0	57.6	60.4	64.1	70.7	77.2	80.0	86.8	92.7
25295-02	35.9	41.5	47.0	52.1	56.1	60.5	65.2	70.1	73.9	79.4
25295-12	42.1	47.4	53.9	57.7	62.5	65.9	71.5	76.0	82.0	87.0
MEAN	38.9	43.2	49.0	53.2	57.4	62.2	67.4	71.8	76.7	82.0
S.D.	3.39	4.03	3.95	3.74	3.96	4.62	4.84	4.86	5.66	5.94
N	15	15	15	15	15	15	15	15	15	15

TABLE 12
PUBERTAL ASSAY OF SP 7077 (TS01010) IN JUV. FEMALE RATS
INDIVIDUAL BODY WEIGHTS [G]

FEMALES

DAY	32	33	34	35	36	37	38	39	40	41
ANIMALS FROM GROUP 4: 500 MG/KG/DAY										
25289-03	86.0	89.3	95.0	97.2	101.8	104.2	106.7	113.5	112.9	120.0
25289-08	88.1	94.5	101.9	104.0	111.8	117.1	121.1	123.4	132.0	133.5
25289-11	86.7	91.1	95.6	97.4	99.2	102.8	106.1	107.3	112.3	111.5
25289-13	88.9	94.8	103.9	109.2	114.8	121.2	128.6	131.6	136.9	143.7
25290-03	69.5	73.3	76.0	80.7	84.9	87.7	91.0	97.1	98.9	105.3
25290-06	79.9	84.2	90.5	93.1	98.8	104.9	108.5	113.2	120.0	123.6
25291-01	88.1	93.7	100.6	103.9	109.8	113.3	120.8	122.9	126.3	133.7
25292-04	88.7	97.2	101.6	106.5	111.0	116.1	122.1	126.5	128.0	136.0
25292-13	92.7	98.3	104.3	109.4	116.5	122.4	127.7	134.3	137.6	142.9
25293-03	85.2	90.7	97.1	101.7	101.9	107.7	111.6	110.3	116.4	119.3
25293-05	93.0	97.8	105.5	111.2	114.3	120.7	125.7	129.0	132.5	136.4
25293-12	91.3	97.7	103.7	113.0	113.7	121.5	127.0	133.3	136.2	142.1
25294-06	96.8	102.9	108.2	112.9	119.6	122.9	128.2	131.1	135.8	140.7
25295-02	84.6	90.4	97.6	103.8	107.9	115.2	121.1	125.5	129.9	136.6
25295-12	92.1	98.2	106.0	111.5	115.8	123.7	125.3	130.5	136.0	141.1
MEAN	87.4	92.9	99.2	103.7	108.1	113.4	118.1	122.0	126.1	131.1
S.D.	6.45	7.16	8.03	8.81	9.20	10.15	10.95	11.13	11.57	12.17
N	15	15	15	15	15	15	15	15	15	15

TABLE 12
PUBERTAL ASSAY OF SP 7077 (TS01010) IN JUV. FEMALE RATS
INDIVIDUAL BODY WEIGHTS [G]

FEMALES

DAY 42

ANIMALS FROM GROUP 4: 500 MG/KG/DAY

25289-03	119.5	SCHED EUTH DAY 42
25289-08	133.3	SCHED EUTH DAY 42
25289-11	116.2	SCHED EUTH DAY 42
25289-13	149.6	SCHED EUTH DAY 42
25290-03	108.4	SCHED EUTH DAY 42
25290-06	126.9	SCHED EUTH DAY 42
25291-01	137.9	SCHED EUTH DAY 42
25292-04	138.6	SCHED EUTH DAY 42
25292-13	147.8	SCHED EUTH DAY 42
25293-03	122.4	SCHED EUTH DAY 42
25293-05	140.4	SCHED EUTH DAY 42
25293-12	149.2	SCHED EUTH DAY 42
25294-06	136.4	SCHED EUTH DAY 42
25295-02	133.6	SCHED EUTH DAY 42
25295-12	135.5	SCHED EUTH DAY 42
MEAN	133.0	
S.D.	12.26	
N	15	

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TABLE 13
PUBERTAL ASSAY OF SP 7077 (TS01010) IN JUV. FEMALE RATS
INDIVIDUAL BODY WEIGHT CHANGES [G]

FEMALES

DAY	22- 23	23- 24	24- 25	25- 26	26- 27	27- 28	28- 29	29- 30	30- 31	31- 32
ANIMALS FROM GROUP 1: 0 MG/KG/DAY										
25288-08	6.1	4.6	3.8	3.5	7.3	4.2	4.9	6.3	4.8	6.8
25291-02	5.8	6.5	4.4	4.3	5.9	4.6	6.8	2.3	4.9	6.4
25291-05	6.2	5.5	3.8	3.6	5.7	6.1	2.6	7.1	6.5	5.2
25291-08	5.9	5.8	3.5	2.9	5.2	4.0	4.4	2.4	6.5	4.6
25291-09	6.1	6.4	3.3	3.0	5.5	3.3	4.9	7.1	4.0	7.1
25292-06	4.8	5.2	2.9	3.9	5.0	5.7	4.1	6.3	3.6	6.1
25292-11	6.6	4.6	4.0	5.7	3.7	4.2	5.5	3.4	4.7	4.2
25293-11	5.8	5.4	5.0	4.4	4.9	5.3	4.6	4.4	7.8	2.2
25293-14	6.4	5.4	4.0	3.8	6.6	3.6	6.0	5.6	4.3	7.8
25294-05	5.6	5.0	4.1	3.3	5.4	5.5	5.3	4.5	6.4	3.4
25294-14	4.4	6.3	5.5	2.3	5.9	3.4	6.7	2.5	5.3	6.2
25295-05	5.7	5.1	5.0	2.8	5.5	5.0	5.5	5.9	3.8	6.4
25295-08	4.5	7.6	4.7	4.1	5.4	5.3	5.4	5.5	6.2	6.2
25295-10	6.7	6.3	2.9	0.2	10.0	3.4	4.9	3.6	5.3	4.0
25295-11	5.1	4.6	3.4	4.3	5.9	3.2	4.8	5.2	5.3	7.4
MEAN	5.7	5.6	4.0	3.5	5.9	4.5	5.1	4.8	5.3	5.6
S.D.	0.72	0.86	0.78	1.23	1.39	0.97	1.03	1.66	1.19	1.61
N	15	15	15	15	15	15	15	15	15	15

TABLE 13
PUBERTAL ASSAY OF SP 7077 (TS01010) IN JUV. FEMALE RATS
INDIVIDUAL BODY WEIGHT CHANGES [G]

FEMALES

DAY	32- 33	33- 34	34- 35	35- 36	36- 37	37- 38	38- 39	39- 40	40- 41	41- 42
ANIMALS FROM GROUP 1: 0 MG/KG/DAY										
25288-08	6.5	9.4	1.5	5.6	6.6	1.0	7.4	7.7	1.9	-1.6
25291-02	5.3	7.0	3.0	6.1	4.9	5.9	7.6	4.4	6.9	6.0
25291-05	8.6	3.8	4.4	6.5	6.2	5.5	4.4	3.6	7.7	1.7
25291-08	6.2	3.3	5.2	3.3	3.2	5.7	5.4	7.1	2.5	7.7
25291-09	4.2	7.4	6.5	4.1	6.1	4.7	5.9	4.6	5.7	7.5
25292-06	4.8	8.6	4.0	7.0	6.3	6.6	5.8	5.1	4.6	4.7
25292-11	5.2	6.1	1.5	6.1	5.1	3.6	4.5	2.2	4.2	5.2
25293-11	7.8	6.4	2.2	5.2	7.5	4.7	-2.4	10.0	7.8	0.8
25293-14	4.2	7.9	10.6	2.2	9.9	6.5	3.1	6.7	6.4	0.8
25294-05	9.7	3.6	7.9	0.4	5.5	8.8	7.1	3.8	2.0	4.4
25294-14	6.4	6.3	6.7	7.1	2.8	6.7	7.0	5.9	6.7	6.1
25295-05	4.7	5.6	6.2	3.3	7.7	4.6	5.6	6.4	0.9	7.5
25295-08	5.8	6.0	7.9	3.8	6.5	9.2	3.3	7.8	0.7	4.8
25295-10	6.8	4.2	8.1	-0.9	7.5	7.7	2.0	4.9	-2.1	6.8
25295-11	7.6	5.7	6.0	5.9	5.9	8.7	3.2	2.3	8.5	5.2
MEAN	6.3	6.1	5.4	4.4	6.1	6.0	4.7	5.5	4.3	4.5
S.D.	1.63	1.82	2.67	2.40	1.76	2.17	2.61	2.16	3.16	2.83
N	15	15	15	15	15	15	15	15	15	15

TABLE 13
PUBERTAL ASSAY OF SP 7077 (TS01010) IN JUV. FEMALE RATS
INDIVIDUAL BODY WEIGHT CHANGES [G]

FEMALES

DAY 22- 42

ANIMALS FROM GROUP 1: 0 MG/KG/DAY

25288-08	98.3	SCHED EUTH DAY 42
25291-02	109.0	SCHED EUTH DAY 42
25291-05	104.7	SCHED EUTH DAY 42
25291-08	94.8	SCHED EUTH DAY 42
25291-09	107.4	SCHED EUTH DAY 42
25292-06	105.1	SCHED EUTH DAY 42
25292-11	90.3	SCHED EUTH DAY 42
25293-11	99.8	SCHED EUTH DAY 42
25293-14	111.8	SCHED EUTH DAY 42
25294-05	101.7	SCHED EUTH DAY 42
25294-14	110.2	SCHED EUTH DAY 42
25295-05	103.2	SCHED EUTH DAY 42
25295-08	110.7	SCHED EUTH DAY 42
25295-10	92.3	SCHED EUTH DAY 42
25295-11	108.2	SCHED EUTH DAY 42
MEAN	103.2	
S.D.	6.84	
N	15	

TABLE 13
PUBERTAL ASSAY OF SP 7077 (TS01010) IN JUV. FEMALE RATS
INDIVIDUAL BODY WEIGHT CHANGES [G]

FEMALES

DAY	22- 23	23- 24	24- 25	25- 26	26- 27	27- 28	28- 29	29- 30	30- 31	31- 32
ANIMALS FROM GROUP 2: 30 MG/KG/DAY										
25288-01	7.2	5.3	4.6	4.0	5.2	4.7	6.0	5.2	4.4	5.4
25288-09	-9.6	18.8	4.7	3.4	7.4	4.4	5.1	5.4	6.8	3.0
25289-04	4.8	6.6	4.2	3.4	6.4	4.8	4.8	4.0	5.2	7.3
25289-06	6.1	6.6	4.3	4.5	5.5	6.7	5.9	4.0	6.5	6.9
25289-12	6.3	5.0	2.4	4.2	4.2	4.8	4.7	4.5	5.9	4.6
25290-11	5.7	5.0	4.7	4.7	6.0	4.0	5.6	5.0	4.9	7.2
25291-03	6.6	5.2	4.5	4.6	4.5	4.5	4.5	5.6	6.2	5.6
25291-04	6.5	5.4	3.4	4.2	5.6	5.8	3.5	5.9	6.5	6.2
25291-10	6.8	5.6	4.6	4.2	2.0	9.1	4.7	4.7	6.6	6.5
25292-01	5.2	6.0	4.5	1.9	5.9	7.8	7.0	5.1	6.0	4.4
25293-01	5.4	5.6	4.4	3.8	1.1	10.0	4.6	5.3	6.0	8.8
25293-04	3.6	6.7	3.8	5.3	15.0	-5.2	7.3	5.5	5.2	2.7
25293-06	4.1	7.0	5.3	3.7	6.1	5.7	4.9	5.7	4.9	5.8
25295-01	6.6	5.6	4.3	3.0	5.1	6.4	4.3	3.9	6.6	4.8
25295-07	6.1	5.9	4.3	5.2	1.7	9.9	4.9	5.9	6.4	7.8
MEAN	4.8	6.7	4.3	4.0	5.4	5.6	5.2	5.0	5.9	5.8
S.D.	4.10	3.41	0.67	0.87	3.21	3.59	1.01	0.68	0.76	1.71
N	15	15	15	15	15	15	15	15	15	15

TABLE 13
PUBERTAL ASSAY OF SP 7077 (TS01010) IN JUV. FEMALE RATS
INDIVIDUAL BODY WEIGHT CHANGES [G]

FEMALES

DAY	32- 33	33- 34	34- 35	35- 36	36- 37	37- 38	38- 39	39- 40	40- 41	41- 42
ANIMALS FROM GROUP 2: 30 MG/KG/DAY										
25288-01	6.3	4.7	4.1	5.3	4.4	5.3	1.6	5.5	2.6	3.8
25288-09	7.9	5.7	4.1	4.7	3.5	4.8	0.9	1.6	3.2	2.2
25289-04	5.0	5.5	5.2	3.8	9.4	6.4	2.8	7.3	6.2	11.5
25289-06	7.4	6.8	8.8	4.1	3.5	8.4	4.1	7.2	3.1	2.6
25289-12	5.7	5.4	5.8	5.3	3.7	1.7	4.8	9.0	2.9	2.0
25290-11	5.6	6.5	5.6	6.6	9.9	5.2	6.7	4.9	8.4	3.6
25291-03	7.3	8.2	4.4	4.0	7.6	4.5	5.2	8.6	-3.4	12.1
25291-04	5.8	7.9	3.6	5.4	4.9	6.2	5.4	7.2	0.6	4.2
25291-10	7.4	6.5	3.9	8.8	7.8	7.8	2.9	7.8	4.0	7.4
25292-01	6.8	5.0	5.7	3.7	7.8	2.5	5.6	5.3	3.6	0.6
25293-01	4.1	5.7	7.5	5.7	4.0	6.1	3.2	3.4	4.8	7.1
25293-04	7.6	4.5	9.8	4.6	5.3	7.4	3.3	4.7	3.3	7.2
25293-06	6.8	7.2	7.2	4.7	5.8	4.4	7.5	7.0	3.0	4.3
25295-01	7.3	5.7	2.9	3.0	7.2	5.0	-2.2	6.6	3.1	5.3
25295-07	9.5	9.5	7.9	6.1	6.1	10.0	3.5	1.4	4.7	9.8
MEAN	6.7	6.3	5.8	5.1	6.1	5.7	3.7	5.8	3.3	5.6
S.D.	1.33	1.40	2.06	1.42	2.13	2.16	2.43	2.32	2.57	3.51
N	15	15	15	15	15	15	15	15	15	15

TABLE 13
PUBERTAL ASSAY OF SP 7077 (TS01010) IN JUV. FEMALE RATS
INDIVIDUAL BODY WEIGHT CHANGES [G]

FEMALES

DAY 22- 42

ANIMALS FROM GROUP 2: 30 MG/KG/DAY

25288-01	95.6	SCHED EUTH DAY 42
25288-09	88.0	SCHED EUTH DAY 42
25289-04	114.6	SCHED EUTH DAY 42
25289-06	113.0	SCHED EUTH DAY 42
25289-12	92.9	SCHED EUTH DAY 42
25290-11	115.8	SCHED EUTH DAY 42
25291-03	110.3	SCHED EUTH DAY 42
25291-04	104.2	SCHED EUTH DAY 42
25291-10	119.1	SCHED EUTH DAY 42
25292-01	100.4	SCHED EUTH DAY 42
25293-01	106.6	SCHED EUTH DAY 42
25293-04	107.6	SCHED EUTH DAY 42
25293-06	111.1	SCHED EUTH DAY 42
25295-01	94.5	SCHED EUTH DAY 42
25295-07	126.6	SCHED EUTH DAY 42
MEAN	106.7	
S.D.	10.78	
N	15	

TABLE 13
PUBERTAL ASSAY OF SP 7077 (TS01010) IN JUV. FEMALE RATS
INDIVIDUAL BODY WEIGHT CHANGES [G]

FEMALES

DAY	22- 23	23- 24	24- 25	25- 26	26- 27	27- 28	28- 29	29- 30	30- 31	31- 32
ANIMALS FROM GROUP 3: 150 MG/KG/DAY										
25288-07	6.3	7.0	4.9	3.3	4.6	4.2	5.4	4.4	5.1	5.9
25288-10	6.0	3.4	5.4	3.2	5.0	4.9	3.7	5.1	6.3	6.5
25288-13	6.0	6.3	4.9	4.8	4.1	5.4	4.9	5.1	6.5	9.4
25289-01	3.4	7.7	3.7	3.5	5.0	6.1	4.3	4.2	7.2	4.8
25290-02	5.1	5.4	4.7	3.6	5.5	4.8	5.2	3.8	5.0	6.4
25291-07	5.4	5.9	3.6	5.2	4.6	4.5	4.8	5.2	6.6	7.3
25292-02	4.9	6.4	3.8	4.4	5.1	4.4	4.9	4.0	5.5	6.8
25292-07	5.5	5.6	5.1	4.4	6.2	5.5	5.9	5.1	4.9	7.1
25293-07	4.9	5.0	4.9	5.6	5.5	6.0	3.8	6.6	6.2	6.1
25293-08	6.3	5.0	4.7	2.9	5.0	5.3	6.4	2.0	5.7	6.4
25293-09	4.4	5.3	5.4	4.6	7.5	5.9	6.1	6.1	8.9	8.1
25294-10	5.6	5.3	3.7	3.9	3.6	5.7	4.8	3.2	7.6	4.9
25294-12	-1.3	-0.9	5.5	4.1	1.5	1.6	3.3	1.4	3.3	3.3
25295-06	5.7	6.3	4.5	3.9	4.7	4.5	4.8	5.5	7.1	6.0
25295-09	5.8	5.4	5.1	4.4	3.6	5.6	5.6	5.9	5.9	6.1
MEAN	4.9	5.3	4.7	4.1	4.8	5.0	4.9	4.5	6.1	6.3
S.D.	1.89	1.97	0.66	0.76	1.33	1.12	0.89	1.46	1.33	1.42
N	15	15	15	15	15	15	15	15	15	15

TABLE 13
PUBERTAL ASSAY OF SP 7077 (TS01010) IN JUV. FEMALE RATS
INDIVIDUAL BODY WEIGHT CHANGES [G]

	FEMALES									
DAY	32- 33	33- 34	34- 35	35- 36	36- 37	37- 38	38- 39	39- 40	40- 41	41- 42
ANIMALS FROM GROUP 3: 150 MG/KG/DAY										
25288-07	4.8	4.9	4.0	5.8	6.2	3.4	5.8	7.3	-0.8	5.8
25288-10	6.7	4.4	5.1	5.8	3.7	7.8	-0.7	8.8	3.1	8.6
25288-13	3.2	9.7	4.3	5.8	8.7	4.6	7.6	7.6	0.5	8.9
25289-01	6.6	4.8	8.5	4.6	5.4	6.8	4.3	3.6	6.8	1.7
25290-02	6.2	5.7	8.0	7.7	6.4	6.6	6.9	6.6	7.3	9.7
25291-07	5.9	6.8	5.4	7.7	5.2	6.0	-0.2	8.7	5.3	7.5
25292-02	4.8	5.0	7.5	3.4	3.2	7.3	4.6	3.3	2.7	4.8
25292-07	6.8	3.4	9.0	3.7	4.1	8.5	1.5	-0.6	6.3	2.9
25293-07	7.7	5.9	6.8	5.4	3.9	1.4	5.9	4.6	2.5	3.5
25293-08	6.6	5.5	6.1	5.6	4.9	7.8	3.4	3.5	0.0	5.4
25293-09	3.6	4.8	7.1	7.5	7.1	4.3	-0.4	5.6	8.0	6.2
25294-10	4.1	6.2	5.5	3.8	1.9	8.4	-2.5	5.9	3.9	5.9
25294-12	3.4	3.3	2.4	3.9	2.7	4.4	6.2	3.7	4.0	6.0
25295-06	7.1	5.0	6.2	5.5	8.2	4.0	9.0	5.9	6.6	-1.4
25295-09	7.9	7.3	4.6	4.9	3.0	7.7	4.7	2.7	4.1	0.6
MEAN	5.7	5.5	6.0	5.4	5.0	5.9	3.7	5.1	4.0	5.1
S.D.	1.58	1.59	1.82	1.42	2.03	2.13	3.44	2.54	2.73	3.14
N	15	15	15	15	15	15	15	15	15	15

TABLE 13
PUBERTAL ASSAY OF SP 7077 (TS01010) IN JUV. FEMALE RATS
INDIVIDUAL BODY WEIGHT CHANGES [G]

FEMALES

DAY 22- 42

ANIMALS FROM GROUP 3: 150 MG/KG/DAY

25288-07	98.3	SCHED EUTH DAY 42
25288-10	102.8	SCHED EUTH DAY 42
25288-13	118.3	SCHED EUTH DAY 42
25289-01	103.0	SCHED EUTH DAY 42
25290-02	120.6	SCHED EUTH DAY 42
25291-07	111.4	SCHED EUTH DAY 42
25292-02	96.8	SCHED EUTH DAY 42
25292-07	100.9	SCHED EUTH DAY 42
25293-07	102.2	SCHED EUTH DAY 42
25293-08	98.5	SCHED EUTH DAY 42
25293-09	116.1	SCHED EUTH DAY 42
25294-10	91.4	SCHED EUTH DAY 42
25294-12	61.8	SCHED EUTH DAY 42
25295-06	109.1	SCHED EUTH DAY 42
25295-09	100.9	SCHED EUTH DAY 42
MEAN	102.1	
S.D.	13.98	
N	15	

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TABLE 13
PUBERTAL ASSAY OF SP 7077 (TS01010) IN JUV. FEMALE RATS
INDIVIDUAL BODY WEIGHT CHANGES [G]

FEMALES

DAY	22- 23	23- 24	24- 25	25- 26	26- 27	27- 28	28- 29	29- 30	30- 31	31- 32
ANIMALS FROM GROUP 4: 500 MG/KG/DAY										
25289-03	5.6	4.5	4.6	3.2	4.1	5.8	3.3	4.3	5.6	6.5
25289-08	5.4	6.7	4.1	4.2	6.1	5.4	4.5	5.7	5.5	5.3
25289-11	5.1	6.9	6.0	3.5	4.3	6.5	3.8	5.2	3.6	6.5
25289-13	1.4	6.5	6.1	4.5	4.8	5.9	5.6	6.6	6.6	6.1
25290-03	2.1	6.1	2.6	3.5	3.0	3.9	3.9	2.6	4.6	2.4
25290-06	2.1	4.6	3.3	3.2	3.9	5.0	3.5	4.2	4.7	5.5
25291-01	3.8	3.9	4.1	4.4	4.5	3.6	4.4	4.6	4.1	5.7
25292-04	4.0	5.0	5.3	3.6	4.6	5.6	5.9	4.7	5.5	5.0
25292-13	4.1	6.3	2.3	5.7	4.5	6.7	4.6	6.2	5.0	9.4
25293-03	4.7	4.3	4.9	5.0	4.9	3.9	3.6	3.4	5.7	4.6
25293-05	5.9	5.2	3.6	5.1	6.1	5.3	4.8	4.8	4.6	5.9
25293-12	4.1	6.9	4.1	5.2	6.8	3.7	5.4	4.4	7.6	4.4
25294-06	5.4	7.6	2.8	3.7	6.6	6.5	2.8	6.8	5.9	4.1
25295-02	5.6	5.5	5.1	4.0	4.4	4.7	4.9	3.8	5.5	5.2
25295-12	5.3	6.5	3.8	4.8	3.4	5.6	4.5	6.0	5.0	5.1
MEAN	4.3	5.8	4.2	4.2	4.8	5.2	4.4	4.9	5.3	5.4
S.D.	1.43	1.13	1.17	0.79	1.13	1.05	0.89	1.20	0.98	1.51
N	15	15	15	15	15	15	15	15	15	15

TABLE 13
PUBERTAL ASSAY OF SP 7077 (TS01010) IN JUV. FEMALE RATS
INDIVIDUAL BODY WEIGHT CHANGES [G]

FEMALES

DAY	32- 33	33- 34	34- 35	35- 36	36- 37	37- 38	38- 39	39- 40	40- 41	41- 42
ANIMALS FROM GROUP 4: 500 MG/KG/DAY										
25289-03	3.3	5.7	2.2	4.6	2.4	2.5	6.8	-0.6	7.1	-0.5
25289-08	6.4	7.4	2.1	7.8	5.3	4.0	2.3	8.6	1.5	-0.2
25289-11	4.4	4.5	1.8	1.8	3.6	3.3	1.2	5.0	-0.8	4.7
25289-13	5.9	9.1	5.3	5.6	6.4	7.4	3.0	5.3	6.8	5.9
25290-03	3.8	2.7	4.7	4.2	2.8	3.3	6.1	1.8	6.4	3.1
25290-06	4.3	6.3	2.6	5.7	6.1	3.6	4.7	6.8	3.6	3.3
25291-01	5.6	6.9	3.3	5.9	3.5	7.5	2.1	3.4	7.4	4.2
25292-04	8.5	4.4	4.9	4.5	5.1	6.0	4.4	1.5	8.0	2.6
25292-13	5.6	6.0	5.1	7.1	5.9	5.3	6.6	3.3	5.3	4.9
25293-03	5.5	6.4	4.6	0.2	5.8	3.9	-1.3	6.1	2.9	3.1
25293-05	4.8	7.7	5.7	3.1	6.4	5.0	3.3	3.5	3.9	4.0
25293-12	6.4	6.0	9.3	0.7	7.8	5.5	6.3	2.9	5.9	7.1
25294-06	6.1	5.3	4.7	6.7	3.3	5.3	2.9	4.7	4.9	-4.3
25295-02	5.8	7.2	6.2	4.1	7.3	5.9	4.4	4.4	6.7	-3.0
25295-12	6.1	7.8	5.5	4.3	7.9	1.6	5.2	5.5	5.1	-5.6
MEAN	5.5	6.2	4.5	4.4	5.3	4.7	3.9	4.1	5.0	2.0
S.D.	1.27	1.60	1.95	2.23	1.80	1.70	2.26	2.29	2.41	3.81
N	15	15	15	15	15	15	15	15	15	15

TABLE 13
PUBERTAL ASSAY OF SP 7077 (TS01010) IN JUV. FEMALE RATS
INDIVIDUAL BODY WEIGHT CHANGES [G]

FEMALES

DAY 22- 42

ANIMALS FROM GROUP 4: 500 MG/KG/DAY

25289-03	81.0	SCHED EUTH DAY 42
25289-08	98.1	SCHED EUTH DAY 42
25289-11	80.9	SCHED EUTH DAY 42
25289-13	114.8	SCHED EUTH DAY 42
25290-03	73.6	SCHED EUTH DAY 42
25290-06	87.0	SCHED EUTH DAY 42
25291-01	92.9	SCHED EUTH DAY 42
25292-04	99.1	SCHED EUTH DAY 42
25292-13	109.9	SCHED EUTH DAY 42
25293-03	82.2	SCHED EUTH DAY 42
25293-05	98.7	SCHED EUTH DAY 42
25293-12	110.5	SCHED EUTH DAY 42
25294-06	91.8	SCHED EUTH DAY 42
25295-02	97.7	SCHED EUTH DAY 42
25295-12	93.4	SCHED EUTH DAY 42
MEAN	94.1	
S.D.	11.92	
N	15	

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05/28/2003
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TABLE 14
PUBERTAL ASSAY OF SP 7077 (TS01010) IN JUV. FEMALE RATS
INDIVIDUAL ANIMAL DEVELOPMENTAL PARAMETERS - VAGINAL PATENCY

GROUP: 0 MG/KG/DAY SEX: FEMALES

ANIMAL	DAY OF RESPONSE	WEIGHT GRAMS	PND===> 27	28	29	30	31	32	33	34	35	36	37	38	39
25288-08	33	103.7	N	N	N	N	N	N	Y						
25291-02	36	110.0	N	N	N	N	N	N	N	N	N	Y			
25291-05	35	108.4	N	N	N	N	N	N	N	N	Y				
25291-08	37	103.7	N	N	N	N	N	N	N	N	N	N	Y		
25291-09	37	116.5	N	N	N	N	N	N	N	N	N	N	Y		
25292-06	38	122.0	N	N	N	N	N	N	N	N	N	N	N	Y	
25292-11	39	113.2	N	N	N	N	N	N	N	N	N	N	N	N	Y
25293-11	35	108.5	N	N	N	N	N	N	N	N	Y				
25293-14	37	127.9	N	N	N	N	N	N	N	N	N	N	Y		
25294-05	37	119.8	N	N	N	N	N	N	N	N	N	N	Y		
25294-14	39	125.3	N	N	N	N	N	N	N	N	N	N	N	N	Y
25295-05	36	113.8	N	N	N	N	N	N	N	N	N	Y			
25295-08	37	121.1	N	N	N	N	N	N	N	N	N	N	Y		
25295-10	36	106.4	N	N	N	N	N	N	N	N	N	Y			
25295-11	35	108.2	N	N	N	N	N	N	N	N	Y				
MEAN	36.5	113.9													
S.D.	1.60	7.82													
N	15	15													

N = NEGATIVE RESPONSE, Y = POSITIVE RESPONSE
PND= POSTNATAL DAY

TABLE 14
PUBERTAL ASSAY OF SP 7077 (TS01010) IN JUV. FEMALE RATS
INDIVIDUAL ANIMAL DEVELOPMENTAL PARAMETERS - VAGINAL PATENCY

GROUP: 30 MG/KG/DAY SEX: FEMALES

ANIMAL	DAY OF RESPONSE	WEIGHT GRAMS	PND===> 27	28	29	30	31	32	33	34	35	36	37	38	39
25288-01	38	117.6	N	N	N	N	N	N	N	N	N	N	N	Y	
25288-09	31	93.0	N	N	N	N	Y								
25289-04	33	88.4	N	N	N	N	N	N	Y						
25289-06	31	90.1	N	N	N	N	Y								
25289-12	32	81.6	N	N	N	N	N	Y							
25290-11	36	118.4	N	N	N	N	N	N	N	N	N	Y			
25291-03	36	115.9	N	N	N	N	N	N	N	N	N	Y			
25291-04	35	111.1	N	N	N	N	N	N	N	N	Y				
25291-10	35	116.7	N	N	N	N	N	N	N	N	Y				
25292-01	32	95.2	N	N	N	N	N	Y							
25293-01	35	111.7	N	N	N	N	N	N	N	N	Y				
25293-04	36	110.9	N	N	N	N	N	N	N	N	N	Y			
25293-06	33	102.4	N	N	N	N	N	N	Y						
25295-01	31	88.6	N	N	N	N	Y								
25295-07	35	125.4	N	N	N	N	N	N	N	N	Y				
MEAN	33.9	104.5													
S.D.	2.22	13.85													
N	15	15													

N = NEGATIVE RESPONSE, Y = POSITIVE RESPONSE
PND= POSTNATAL DAY

TABLE 14
PUBERTAL ASSAY OF SP 7077 (TS01010) IN JUV. FEMALE RATS
INDIVIDUAL ANIMAL DEVELOPMENTAL PARAMETERS - VAGINAL PATENCY

GROUP: 150 MG/KG/DAY SEX: FEMALES

ANIMAL	DAY OF RESPONSE	WEIGHT GRAMS	PND===> 27	28	29	30	31	32	33	34	35	36	37	38	39
25288-07	28	67.5	N	Y											
25288-10	28	68.9	N	Y											
25288-13	28	71.4	N	Y											
25289-01	29	65.9	N	N	Y										
25290-02	28	68.4	N	Y											
25291-07	28	66.7	N	Y											
25292-02	28	63.4	N	Y											
25292-07	28	73.3	N	Y											
25293-07	28	73.9	N	Y											
25293-08	28	65.6	N	Y											
25293-09	28	80.7	N	Y											
25294-10	29	73.0	N	N	Y										
25294-12	29	44.6	N	N	Y										
25295-06	28	65.5	N	Y											
25295-09	28	74.8	N	Y											
MEAN	28.2	68.2													
S.D.	0.41	7.99													
N	15	15													

N = NEGATIVE RESPONSE, Y = POSITIVE RESPONSE
PND= POSTNATAL DAY

TABLE 14
PUBERTAL ASSAY OF SP 7077 (TS01010) IN JUV. FEMALE RATS
INDIVIDUAL ANIMAL DEVELOPMENTAL PARAMETERS - VAGINAL PATENCY

GROUP: 500 MG/KG/DAY SEX: FEMALES

ANIMAL	DAY OF RESPONSE	WEIGHT GRAMS	PND===> 27	28	29	30	31	32	33	34	35	36	37	38	39
25289-03	29	69.6	N	N	Y										
25289-08	28	67.1	N	Y											
25289-11	28	67.6	N	Y											
25289-13	29	69.6	N	N	Y										
25290-03	30	62.5	N	N	N	Y									
25290-06	30	69.7	N	N	N	Y									
25291-01	28	69.3	N	Y											
25292-04	28	67.6	N	Y											
25292-13	29	72.1	N	N	Y										
25293-03	28	67.9	N	Y											
25293-05	27	63.8	Y												
25293-12	28	69.5	N	Y											
25294-06	29	80.0	N	N	Y										
25295-02	29	70.1	N	N	Y										
25295-12	27	66.0	Y												
MEAN	28.5	68.8													
S.D.	0.92	3.96													
N	15	15													

N = NEGATIVE RESPONSE, Y = POSITIVE RESPONSE
PND= POSTNATAL DAY

PJTBBv1.03
05/28/2003
R:05/28/2003

TABLE 15
PUBERTAL ASSAY OF SP 7077 (TS01010) IN JUV. FEMALE RATS
INDIVIDUAL ESTROUS CYCLE DATA

FEMALES FROM GROUP 1: 0 MG/KG/DAY

FEMALE NUMBER	DETERMINATION DAY: 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	INDIVIDUAL MEAN LENGTH OF ESTROUS CYCLE (DAYS)
25288-08	N	N	N	N	N	N	E	D	D	D	P	E	D	D	D	E	5.0
25291-02	N	N	N	N	N	N	N	N	N	E	D	D	D	D	D	D	A
25291-05	N	N	N	N	N	N	N	N	D	D	D	P	E	D	D	D	A
25291-08	N	N	N	N	N	N	N	N	N	N	E	D	D	D	D	D	A
25291-09	N	N	N	N	N	N	N	N	N	N	D	D	D	D	D	D	A
25292-06	N	N	N	N	N	N	N	N	N	N	N	E	D	D	D	P	A
25292-11	N	N	N	N	N	N	N	N	N	N	N	N	E	D	D	D	A
25293-11	N	N	N	N	N	N	N	N	D	D	D	P	E	D	D	D	A
25293-14	N	N	N	N	N	N	N	N	N	N	E	D	D	D	P	E	A
25294-05	N	N	N	N	N	N	N	N	N	N	D	E	D	D	D	D	A
25294-14	N	N	N	N	N	N	N	N	N	N	N	N	D	D	D	D	A
25295-05	N	N	N	N	N	N	N	N	N	D	D	D	D	E	E	D	A
25295-08	N	N	N	N	N	N	N	N	N	N	E	D	D	D	P	E	A
25295-10	N	N	N	N	N	N	N	N	N	D	D	D	D	P	E	D	A
25295-11	N	N	N	N	N	N	N	N	D	D	D	D	P	E	D	D	A

MEAN	5.0
S.D.	0.00
N	1

ESTROUS STAGE CODE: E = ESTRUS, D = DIESTRUS, M = METESTRUS, P = PROESTRUS
A = UNABLE TO DETERMINE LENGTH OF ESTROUS CYCLE
N = NOT ENTERED

TABLE 15
PUBERTAL ASSAY OF SP 7077 (TS01010) IN JUV. FEMALE RATS
INDIVIDUAL ESTROUS CYCLE DATA

FEMALES FROM GROUP 2: 30 MG/KG/DAY

FEMALE NUMBER	DETERMINATION DAY: 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	INDIVIDUAL MEAN LENGTH OF ESTROUS CYCLE (DAYS)
25288-01	N	N	N	N	N	N	N	N	N	N	D	D	E	D	D	D	A
25288-09	N	N	N	N	D	D	E	D	D	D	P	E	D	D	D	E	5.0
25289-04	N	N	N	N	N	N	P	E	D	D	D	D	D	D	D	D	A
25289-06	N	N	N	N	P	E	D	D	D	P	E	D	D	D	P	E	5.0
25289-12	N	N	N	N	N	P	E	D	D	D	P	E	D	D	D	E	5.0
25290-11	N	N	N	N	N	N	N	N	N	E	D	D	D	D	E	D	5.0
25291-03	N	N	N	N	N	N	N	N	N	E	D	D	D	D	E	D	5.0
25291-04	N	N	N	N	N	N	N	N	D	E	D	D	D	D	P	E	A
25291-10	N	N	N	N	N	N	N	N	D	D	D	D	D	D	D	D	A
25292-01	N	N	N	N	N	E	D	D	D	N	P	E	D	D	D	D	6.0
25293-01	N	N	N	N	N	N	N	N	D	D	D	D	E	E	D	D	A
25293-04	N	N	N	N	N	N	N	N	N	E	D	D	D	P	E	D	5.0
25293-06	N	N	N	N	N	N	E	D	D	D	D	E	D	D	D	E	5.0
25295-01	N	N	N	N	D	P	E	D	D	D	D	D	E	D	D	D	6.0
25295-07	N	N	N	N	N	N	N	N	E	D	D	D	P	E	D	D	5.0
																	MEAN 5.2
																	S.D. 0.42
																	N 10

ESTROUS STAGE CODE: E = ESTRUS, D = DIESTRUS, M = METESTRUS, P = PROESTRUS
A = UNABLE TO DETERMINE LENGTH OF ESTROUS CYCLE
N = NOT ENTERED

TABLE 15
PUBERTAL ASSAY OF SP 7077 (TS01010) IN JUV. FEMALE RATS
INDIVIDUAL ESTROUS CYCLE DATA

FEMALES FROM GROUP 3: 150 MG/KG/DAY

FEMALE NUMBER	DETERMINATION DAY: 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	INDIVIDUAL MEAN LENGTH OF ESTROUS CYCLE (DAYS)
25288-07	N	D	D	D	D	D	D	P	E	D	D	D	D	D	E	D	6.0
25288-10	N	P	P	D	P	E	D	D	D	P	E	D	D	D	D	D	4.0
25288-13	N	D	D	D	D	D	D	E	E	D	D	D	D	E	E	D	6.0
25289-01	N	N	D	D	D	D	D	D	P	E	D	D	D	D	E	E	A
25290-02	N	D	P	D	D	D	D	P	E	D	D	D	D	D	D	D	6.0
25291-07	N	D	D	D	D	P	E	E	D	D	D	P	E	D	D	D	5.0
25292-02	N	D	M	D	D	D	D	D	P	E	D	D	D	D	P	E	A
25292-07	N	D	D	D	D	D	P	E	D	D	D	D	E	E	D	D	6.0
25293-07	N	D	D	D	P	E	D	D	D	D	E	E	D	D	D	P	6.0
25293-08	N	D	D	D	D	D	D	D	D	E	D	D	D	P	E	D	5.0
25293-09	N	E	D	D	D	D	E	E	D	D	D	P	E	D	D	D	5.5
25294-10	N	N	D	D	D	D	E	D	D	D	D	P	E	D	D	D	6.0
25294-12	N	N	D	D	D	D	D	D	D	D	D	D	D	P	E	D	A
25295-06	N	D	D	D	D	D	E	D	D	D	P	E	D	D	D	E	5.0
25295-09	N	D	D	E	D	E	D	D	D	P	E	D	D	D	D	E	3.5
																MEAN	5.3
																S.D.	0.86
																N	12

ESTROUS STAGE CODE: E = ESTRUS, D = DIESTRUS, M = METESTRUS, P = PROESTRUS
A = UNABLE TO DETERMINE LENGTH OF ESTROUS CYCLE
N = NOT ENTERED

TABLE 15
PUBERTAL ASSAY OF SP 7077 (TS01010) IN JUV. FEMALE RATS
INDIVIDUAL ESTROUS CYCLE DATA

FEMALES FROM GROUP 4: 500 MG/KG/DAY

FEMALE NUMBER	DETERMINATION DAY: 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	INDIVIDUAL MEAN LENGTH OF ESTROUS CYCLE (DAYS)
25289-03	N	N	D	P	E	E	E	D	D	D	E	E	D	D	D	P	5.0
25289-08	N	D	P	D	D	E	E	M	D	D	E	D	D	D	E	E	4.0
25289-11	N	D	D	D	D	D	D	D	D	D	M	D	D	D	E	D	A
25289-13	N	N	D	D	D	D	D	D	D	D	D	D	E	E	E	D	A
25290-03	N	N	N	D	D	D	D	D	E	D	D	D	D	E	D	D	5.0
25290-06	N	N	N	D	E	M	E	E	D	D	D	D	D	E	D	D	4.5
25291-01	N	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	A
25292-04	N	E	E	M	D	E	D	D	D	E	M	E	M	D	D	D	3.0
25292-13	N	N	M	D	D	D	D	D	E	E	M	D	D	E	E	D	5.0
25293-03	M	D	D	D	D	D	E	D	D	D	D	E	D	D	D	P	5.0
25293-05	N	D	D	D	D	D	D	E	D	D	D	D	E	D	D	D	5.0
25293-12	N	D	M	D	D	D	D	D	E	M	D	D	D	E	D	D	5.0
25294-06	N	N	D	D	D	D	E	D	D	D	D	D	E	D	D	D	6.0
25295-02	N	N	D	D	D	D	D	D	D	D	E	D	D	D	D	E	A
25295-12	E	E	M	D	D	D	D	E	D	D	D	D	E	D	D	D	5.5
																MEAN	4.8
																S.D.	0.78
																N	11

ESTROUS STAGE CODE: E = ESTRUS, D = DIESTRUS, M = METESTRUS, P = PROESTRUS
A = UNABLE TO DETERMINE LENGTH OF ESTROUS CYCLE
N = NOT ENTERED

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05/28/2003
R:05/28/2003

TABLE 16
PUBERTAL ASSAY OF SP 7077 (TS01010) IN JUV. FEMALE RATS
INDIVIDUAL ORGAN WEIGHTS AND FINAL BODY WEIGHTS [G]

FEMALE GROUP: 0 MG/KG/DAY

ANIMAL	FBW(G)	UTERUS - WET	UTERUS - BLOT.	LUMINAL FLUID	LIVER	OVARIES	ADRENAL GLANDS	PITU ITARY
25288-08	143.	0.3632	0.3317	0.0315	7.2600	0.0794	0.0277	0.0086
25291-02	146.	0.1856	0.1621	0.0235	9.0200	0.0533	0.0280	0.0067
25291-05	144.	0.3754	0.3248	0.0506	6.8500	0.0852	0.0377	0.0009
25291-08	132.	0.1832	0.1631	0.0201	7.3400	0.0564	0.0348	0.0066
25291-09	145.	0.3344	0.3154	0.0190	8.7400	0.0665	0.0276	0.0084
25292-06	142.	0.6302	0.3599	0.2703	7.5600	0.0687	0.0307	0.0073
25292-11	125.	0.2493	0.2310	0.0183	6.2300	0.0774	0.0289	0.0065
25293-11	142.	0.5773	0.4073	0.1700	7.2700	0.0802	0.0397	0.0067
25293-14	151.	0.3417	0.3235	0.0182	10.1900	0.1015	0.0335	0.0093
25294-05	146.	0.5366	0.3916	0.1450	7.5100	0.0779	0.0393	0.0085
25294-14	144.	0.2316	0.2087	0.0229	7.5900	0.0667	0.0331	0.0072
25295-05	147.	0.2719	0.2428	0.0291	6.9600	0.0905	0.0359	0.0101
25295-08	147.	0.3602	0.3393	0.0209	7.7000	0.0863	0.0350	0.0087
25295-10	133.	0.2432	0.2151	0.0281	5.6500	0.0813	0.0306	0.0074
25295-11	148.	0.2525	0.2286	0.0239	7.3200	0.0825	0.0285	0.0077
MEAN	142.	0.3424	0.2830	0.0594	7.5460	0.0769	0.0327	0.0074
S.D.	7.0	0.13923	0.07997	0.07499	1.10266	0.01274	0.00424	0.00209
N	15	15	15	15	15	15	15	15

FBW = FINAL BODY WEIGHT

TABLE 16
PUBERTAL ASSAY OF SP 7077 (TS01010) IN JUV. FEMALE RATS
INDIVIDUAL ORGAN WEIGHTS AND FINAL BODY WEIGHTS [G]

FEMALE GROUP: 30 MG/KG/DAY

ANIMAL	FBW(G)	UTERUS - WET	UTERUS - BLOT.	LUMINAL FLUID	LIVER	OVARIES	ADRENAL GLANDS	PITU ITARY
25288-01	131.	0.3569	0.3170	0.0399	7.0200	0.0671	0.0317	0.0069
25288-09	135.	0.3637	0.3502	0.0135	6.6900	0.0926	0.0449	0.0090
25289-04	147.	0.2306	0.2066	0.0240	9.5700	0.0594	0.0293	0.0072
25289-06	153.	0.3485	0.3348	0.0137	8.7800	0.0884	0.0486	0.0098
25289-12	128.	0.7854	0.4081	0.3773	7.0200	0.0819	0.0310	0.0085
25290-11	157.	0.2698	0.2568	0.0130	7.9500	0.0933	0.0288	0.0081
25291-03	151.	0.2281	0.1998	0.0283	8.8000	0.0843	0.0335	0.0097
25291-04	145.	0.3363	0.3204	0.0159	7.6400	0.0921	0.0340	0.0110
25291-10	163.	0.2163	0.1896	0.0267	9.3500	0.0684	0.0380	0.0078
25292-01	142.	0.8466	0.4945	0.3521	7.0200	0.0789	0.0507	0.0086
25293-01	146.	0.2445	0.2247	0.0198	8.1400	0.0867	0.0302	0.0072
25293-04	142.	0.2363	0.2234	0.0129	8.8300	0.0858	0.0320	0.0078
25293-06	154.	0.3550	0.3175	0.0375	8.3000	0.1052	0.0405	0.0088
25295-01	137.	0.4346	0.3979	0.0367	6.6000	0.0946	0.0385	0.0067
25295-07	167.	0.2892	0.2541	0.0351	9.3300	0.0787	0.0404	0.0092
MEAN	147.	0.3695	0.2997	0.0698	8.0693	0.0838	0.0368	0.0084
S.D.	11.2	0.19259	0.08876	0.12022	1.02541	0.01198	0.00704	0.00121
N	15	15	15	15	15	15	15	15

FBW = FINAL BODY WEIGHT

TABLE 16
PUBERTAL ASSAY OF SP 7077 (TS01010) IN JUV. FEMALE RATS
INDIVIDUAL ORGAN WEIGHTS AND FINAL BODY WEIGHTS [G]

FEMALE GROUP: 150 MG/KG/DAY

ANIMAL	FBW(G)	UTERUS - WET	UTERUS - BLOT.	LUMINAL FLUID	LIVER	OVARIES	ADRENAL GLANDS	PITU ITARY
25288-07	136.	0.2665	0.2521	0.0144	8.5600	0.0745	0.0328	0.0064
25288-10	144.	0.2737	0.2461	0.0276	8.6400	0.0477	0.0385	0.0081
25288-13	158.	0.2350	0.2222	0.0128	10.2000	0.0964	0.0407	0.0082
25289-01	135.	0.2852	0.2615	0.0237	8.4600	0.0690	0.0319	0.0088
25290-02	160.	0.2371	0.2226	0.0145	10.9900	0.0753	0.0331	0.0069
25291-07	149.	0.3839	0.3370	0.0469	8.2100	0.0610	0.0345	0.0092
25292-02	131.	0.2875	0.2644	0.0231	7.6100	0.0750	0.0372	0.0053
25292-07	142.	0.2412	0.2113	0.0299	6.7300	0.0730	0.0387	0.0079
25293-07	144.	0.5901	0.4334	0.1567	7.5500	0.0767	0.0451	0.0080
25293-08	135.	A	0.2034	A	7.3300	0.0851	0.0326	0.0077
25293-09	164.	0.5017	0.4524	0.0493	8.4400	0.0788	0.0389	0.0076
25294-10	132.	0.3077	0.2612	0.0465	6.0200	0.0701	0.0353	0.0066
25294-12	93.	0.1718	0.1615	0.0103	4.4700	0.0567	0.0261	0.0033
25295-06	145.	0.9613	0.4581	0.5032	7.8100	0.0653	0.0418	0.0095
25295-09	146.	0.4120	0.3879	0.0241	7.9900	0.1055	0.0475	0.0087
MEAN	141.	0.3682	0.2917	0.0702	7.9340	0.0740	0.0370	0.0075
S.D.	16.7	0.20512	0.09708	0.12996	1.55198	0.01446	0.00553	0.00161
N	15	14	15	14	15	15	15	15

FBW = FINAL BODY WEIGHT
A = WET UTERUS WEIGHT NOT RECORDED, UNABLE TO CALCULATE LUMINAL FLUID WEIGHT

TABLE 16
PUBERTAL ASSAY OF SP 7077 (TS01010) IN JUV. FEMALE RATS
INDIVIDUAL ORGAN WEIGHTS AND FINAL BODY WEIGHTS [G]

FEMALE GROUP: 500 MG/KG/DAY

ANIMAL	FBW(G)	UTERUS - WET	UTERUS - BLOT.	LUMINAL FLUID	LIVER	OVARIES	ADRENAL GLANDS	PITU ITARY
25289-03	120.	0.4289	0.2914	0.1375	7.0100	0.0620	0.0364	0.0072
25289-08	133.	0.2469	0.2373	0.0096	7.8100	0.0895	0.0452	0.0073
25289-11	116.	0.1970	0.1750	0.0220	6.9100	0.0677	0.0338	0.0058
25289-13	150.	0.2327	0.2205	0.0122	9.6200	0.0488	0.0379	0.0083
25290-03	108.	0.1809	0.1652	0.0157	6.0700	0.0504	0.0299	0.0066
25290-06	127.	0.2137	0.2001	0.0136	7.8200	0.0515	0.0296	0.0070
25291-01	138.	0.2000	0.1780	0.0220	8.8100	0.0406	0.0320	0.0067
25292-04	139.	0.2369	0.2206	0.0163	8.5700	0.0575	0.0374	0.0065
25292-13	148.	0.2089	0.1877	0.0212	9.0900	0.0530	0.0397	0.0068
25293-03	122.	0.5108	0.3173	0.1935	6.8000	0.0634	0.0478	0.0067
25293-05	140.	0.3218	0.2728	0.0490	8.1500	0.0643	0.0439	0.0076
25293-12	149.	0.2302	0.2122	0.0180	8.2500	0.0678	0.0419	0.0073
25294-06	136.	0.2222	0.2055	0.0167	7.5500	0.0698	0.0430	0.0076
25295-02	134.	0.2425	0.2298	0.0127	7.6600	0.0784	0.0467	0.0073
25295-12	136.	0.4571	0.3383	0.1188	6.9500	0.0769	0.0455	0.0083
MEAN	133.	0.2754	0.2301	0.0453	7.8047	0.0628	0.0394	0.0071
S.D.	12.4	0.10461	0.05258	0.05686	0.96837	0.01296	0.00611	0.00067
N	15	15	15	15	15	15	15	15

FBW = FINAL BODY WEIGHT

POFBWv4.12
05/28/2003
R:05/28/2003

TABLE 17
PUBERTAL ASSAY OF SP 7077 (TS01010) IN JUV. FEMALE RATS
INDIVIDUAL ORGAN WTS. RELATIVE TO FINAL BODY WTS. [G/100 G]

FEMALE GROUP: 0 MG/KG/DAY

ANIMAL	FBW(G)	UTERUS - WET	UTERUS - BLOT.	LIVER	OVARIES	ADRENAL GLANDS	PITU ITARY
25288-08	143.	0.254	0.232	5.077	0.056	0.019	0.006
25291-02	146.	0.127	0.111	6.178	0.037	0.019	0.005
25291-05	144.	0.261	0.226	4.757	0.059	0.026	0.001
25291-08	132.	0.139	0.124	5.561	0.043	0.026	0.005
25291-09	145.	0.231	0.218	6.028	0.046	0.019	0.006
25292-06	142.	0.444	0.253	5.324	0.048	0.022	0.005
25292-11	125.	0.199	0.185	4.984	0.062	0.023	0.005
25293-11	142.	0.407	0.287	5.120	0.056	0.028	0.005
25293-14	151.	0.226	0.214	6.748	0.067	0.022	0.006
25294-05	146.	0.368	0.268	5.144	0.053	0.027	0.006
25294-14	144.	0.161	0.145	5.271	0.046	0.023	0.005
25295-05	147.	0.185	0.165	4.735	0.062	0.024	0.007
25295-08	147.	0.245	0.231	5.238	0.059	0.024	0.006
25295-10	133.	0.183	0.162	4.248	0.061	0.023	0.006
25295-11	148.	0.171	0.154	4.946	0.056	0.019	0.005
MEAN	142.	0.240	0.198	5.291	0.054	0.023	0.005
S.D.	7.0	0.0959	0.0534	0.6280	0.0084	0.0030	0.0013
N	15	15	15	15	15	15	15

FBW = FINAL BODY WEIGHT

TABLE 17
PUBERTAL ASSAY OF SP 7077 (TS01010) IN JUV. FEMALE RATS
INDIVIDUAL ORGAN WTS. RELATIVE TO FINAL BODY WTS. [G/100 G]

FEMALE GROUP: 30 MG/KG/DAY

ANIMAL	FBW(G)	UTERUS - WET	UTERUS - BLOT.	LIVER	OVARIES	ADRENAL GLANDS	PITU ITARY
25288-01	131.	0.272	0.242	5.359	0.051	0.024	0.005
25288-09	135.	0.269	0.259	4.956	0.069	0.033	0.007
25289-04	147.	0.157	0.141	6.510	0.040	0.020	0.005
25289-06	153.	0.228	0.219	5.739	0.058	0.032	0.006
25289-12	128.	0.614	0.319	5.484	0.064	0.024	0.007
25290-11	157.	0.172	0.164	5.064	0.059	0.018	0.005
25291-03	151.	0.151	0.132	5.828	0.056	0.022	0.006
25291-04	145.	0.232	0.221	5.269	0.064	0.023	0.008
25291-10	163.	0.133	0.116	5.736	0.042	0.023	0.005
25292-01	142.	0.596	0.348	4.944	0.056	0.036	0.006
25293-01	146.	0.167	0.154	5.575	0.059	0.021	0.005
25293-04	142.	0.166	0.157	6.218	0.060	0.023	0.005
25293-06	154.	0.231	0.206	5.390	0.068	0.026	0.006
25295-01	137.	0.317	0.290	4.818	0.069	0.028	0.005
25295-07	167.	0.173	0.152	5.587	0.047	0.024	0.006
MEAN	147.	0.259	0.208	5.498	0.057	0.025	0.006
S.D.	11.2	0.1502	0.0717	0.4717	0.0092	0.0051	0.0009
N	15	15	15	15	15	15	15

FBW = FINAL BODY WEIGHT

TABLE 17
PUBERTAL ASSAY OF SP 7077 (TS01010) IN JUV. FEMALE RATS
INDIVIDUAL ORGAN WTS. RELATIVE TO FINAL BODY WTS. [G/100 G]

FEMALE GROUP: 150 MG/KG/DAY

ANIMAL	FBW(G)	UTERUS - WET	UTERUS - BLOT.	LIVER	OVARIES	ADRENAL GLANDS	PITU ITARY
25288-07	136.	0.196	0.185	6.294	0.055	0.024	0.005
25288-10	144.	0.190	0.171	6.000	0.033	0.027	0.006
25288-13	158.	0.149	0.141	6.456	0.061	0.026	0.005
25289-01	135.	0.211	0.194	6.267	0.051	0.024	0.007
25290-02	160.	0.148	0.139	6.869	0.047	0.021	0.004
25291-07	149.	0.258	0.226	5.510	0.041	0.023	0.006
25292-02	131.	0.219	0.202	5.809	0.057	0.028	0.004
25292-07	142.	0.170	0.149	4.739	0.051	0.027	0.006
25293-07	144.	0.410	0.301	5.243	0.053	0.031	0.006
25293-08	135.	A	0.151	5.430	0.063	0.024	0.006
25293-09	164.	0.306	0.276	5.146	0.048	0.024	0.005
25294-10	132.	0.233	0.198	4.561	0.053	0.027	0.005
25294-12	93.	0.185	0.174	4.806	0.061	0.028	0.004
25295-06	145.	0.663	0.316	5.386	0.045	0.029	0.007
25295-09	146.	0.282	0.266	5.473	0.072	0.033	0.006
MEAN	141.	0.259	0.206	5.599	0.053	0.026	0.005
S.D.	16.7	0.1358	0.0585	0.6739	0.0096	0.0032	0.0010
N	15	14	15	15	15	15	15

FBW = FINAL BODY WEIGHT
A = WEIGHT NOT RECORDED

TABLE 17
PUBERTAL ASSAY OF SP 7077 (TS01010) IN JUV. FEMALE RATS
INDIVIDUAL ORGAN WTS. RELATIVE TO FINAL BODY WTS. [G/100 G]

FEMALE GROUP: 500 MG/KG/DAY

ANIMAL	FBW(G)	UTERUS - WET	UTERUS - BLOT.	LIVER	OVARIES	ADRENAL GLANDS	PITU ITARY
25289-03	120.	0.357	0.243	5.842	0.052	0.030	0.006
25289-08	133.	0.186	0.178	5.872	0.067	0.034	0.005
25289-11	116.	0.170	0.151	5.957	0.058	0.029	0.005
25289-13	150.	0.155	0.147	6.413	0.033	0.025	0.006
25290-03	108.	0.168	0.153	5.620	0.047	0.028	0.006
25290-06	127.	0.168	0.158	6.157	0.041	0.023	0.006
25291-01	138.	0.145	0.129	6.384	0.029	0.023	0.005
25292-04	139.	0.170	0.159	6.165	0.041	0.027	0.005
25292-13	148.	0.141	0.127	6.142	0.036	0.027	0.005
25293-03	122.	0.419	0.260	5.574	0.052	0.039	0.005
25293-05	140.	0.230	0.195	5.821	0.046	0.031	0.005
25293-12	149.	0.154	0.142	5.537	0.046	0.028	0.005
25294-06	136.	0.163	0.151	5.551	0.051	0.032	0.006
25295-02	134.	0.181	0.171	5.716	0.059	0.035	0.005
25295-12	136.	0.336	0.249	5.110	0.057	0.033	0.006
MEAN	133.	0.210	0.174	5.857	0.048	0.030	0.005
S.D.	12.4	0.0874	0.0433	0.3561	0.0105	0.0045	0.0005
N	15	15	15	15	15	15	15

FBW = FINAL BODY WEIGHT

POFBWv4.12
05/28/2003
R:05/29/2003

APPENDIX A

Certificate of Analysis (Sponsor-Provided Data)

Test Substance Certificate

Test Substance
TS01010, TS02044, TS02045 and TS02046

Lot #
TS01010, TS02044, TS02045 and TS02046

Purity
100%

Physical Description
Dark brown viscous liquid

Storage Conditions
Ambient

Expiration Date
1 November 2003

Additional Comments
Can be heated to 60°C to facilitate sampling.

APPENDIX B

Analytical Chemistry Report (Sponsor-Provided Data)

TITLE

The Analytical Report in Support of a Female Pubertal Assay of SP 7077 (TS01010) Administered Orally in Juvenile Female Rats

SUBMITTED TO SUPPORT THE TESTING OF:
SP 7077, TS01010

AUTHOR

STUDY INITIATION DATE
8 April 2003

ANALYTICAL START DATE
11 April 2003

ANALYTICAL END DATE
19 May 2003

ANALYTICAL STUDY COMPLETION DATE
11 August 2003

TOTAL PAGES
11

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ANALYTICAL STUDY GLP COMPLIANCE STATEMENT

ed Laboratory Technologie
2) were conducted in compliance with current EPA Good Laboratory Practice (GLP) standards as described by the Toxic Substances Control Act (TSCA) 40 CFR Part 792, and the revised Organization for Economic Cooperation and Development (OECD) Principles of GLP, ENV/MC/CHEM(98)17.

Principal Investigator:

ANALYTICAL STUDY QUALITY ASSURANCE UNIT STATEMENT

The analytical raw data and final report for the Integrated Laboratory Technologies (ILT) study have been reviewed by the ILT Quality Assurance Team.

The report appears to accurately describe the methods and Standard Operating Procedures (SOPs) used in the study. The reported results accurately reflect the raw data of the study.

Study #

Study Title
The Analytical Report in Support of a Female Pubertal Assay of SP 7077 (TS01010) Administered Orally in Juvenile Female Rats

	Study Director	*Dates Reported to* WIL Research Mgmt	ILT Mgmt
Study In-progress Inspection 2 May 03	8 August 03	8 August 03	8 August 03
Analytical Draft Report Review 4, 6-8 August 03	11 August 03	11 August 03	11 August 03
Analytical Final Report Review 11 August 03	11 August 03	11 August 03	11 August 03

ABSTRACT

Samples of suspensi as (TS01010 in corn oil) used in a female p artal assay in rat

y their homogeneity, stability, and nominal concentrations. A direct dilution procedure was employed to prepare the samples for elemental analysis by Inductively Coupled Plasma-Atomic Emission Spectroscopy (ICP-AES). Homogeneity and stability of TS01010 in corn oil were established. The nominal concentrations of all dosing suspensions were verified by the analytical data.

TEST SUBSTANCE

The test substance used in the preparation of the dosing suspensions is identified as SP 7077 by the Sponsor but will be referred to by its lot numb of TS01010 throughout this report. The CAS number is confidential; conta further information. The test substance was characterized and its stability was established prior to the initiation of the study.

INTRODUCTION

The purpose of this analytical study was the determination and verification of TS01010 homogeneity, stability, and concentration in corn oil. The concentration study samples were aliquots taken from mixtures prepared as dosing suspensions for a female pubertal assay in rats as outlined in the protocol for

The analytical portion of the study was performed by the Elemental Analysis Team located in the Integrated Laboratory Technologies (ILT) group a

analytical start and end dates were 11 April 2003 and 19 May 2003 respectively.

EXPERIMENTAL

SAMPLES
Samples were shipped from WIL Research to ILT's Principal Investigator. Samples were stored at room temperature and in the dark prior to analysis.

The first batch of samples was transferred to the laboratory and analyzed on 11 April 2003. The analysis of the last sample was completed on 16 May 2003. The density of the corn oil vehicle was determined on 19 May 2003.

STANDARDS
Calibration standards for the ICP-AES were made from certified commercially prepared elemental concentrates (Conostan Division of Conoco, Inc.). Standard preparation data is archived by ILT.

ANALYTICAL METHOD
Samples were prepared as stated in ILT's Test Code 30157, SOP ME-007 "Direct Dilution Method to Verify Concentrations of Additives Dissolved in Solvent Vehicles," and analyzed following the procedure outlined in SOP EQ-114 "Model 3560 Inductively Coupled Plasma Spectrometer."

The approach employed in this method was to verify concentration based on the known elemental composition of TS01010. Aliquots of the dosing suspensions were diluted in an o-xylene diluent and the elemental composition was determined by ICP-AES. The calcium concentration of the samples was then used to ascertain the concentration of TS01010 in the dosing suspensions.

DISCUSSION

DETERMINATION OF THE METHOD DETECTION LIMIT
The method detection limit (MDL) was determined following the procedure outlined in 40 CFR 136 Appendix B. The procedure required seven measurements of a standard. The mean, standard deviation, and variance of the replicates were used in the computation of the MDL. The MDL for calcium was calculated to be 0.007 weight (wt) ppm. A reporting limit of 0.7 wt ppm is used for vehicle sample results.

SAMPLE ANALYSIS
The analytical results for the suspensions of TS01010 in corn oil are summarized in the tables located on pages 8 through 11. Nine calibration standards were analyzed to generate a second order fit with inverse concentration-squared weighting. All instrument control checks were within acceptable limits. Known amounts of calcium were spiked into ten samples throughout the duration of the study and gave acceptable percent recoveries of 96 to 102%.

The dosing suspensions were analyzed for calcium, an element present in known concentrations in the test substance, TS01010. Dosing suspension estimates of weight percent calcium were derived by the following formula:

$$Wt\%\ Ca = \left[\frac{x}{x + \left(D_2 - \frac{xD_2}{D_1}\right)}\right] \%\ Ca\ in\ TS01010$$

where x is the solute test substance concentration in mg/µL; D_1 is the test substance density (0.9850 g/mL); and D_2 is the vehicle or solvent density (corn oil, 0.9189 g/mL). The concentration of calcium in TS01010 is 4.14 wt%. The measured results of calcium were obtained by ICP-AES, converted to wt% from ppm by multiplying by 10^{-4}, and then compared against the theoretical values.

Homogeneity was confirmed if the percent differences between the overall dose level mean and individual strata means were 10% or less. Stability and concentration data were evaluated using percent difference. The acceptable tolerance was 15%. Duplicate analyses were compared using the Contract Laboratories Program (CLP) Guidelines for Inorganic Analyses relative percent difference limit of 20%.

RESULTS AND CONCLUSIONS

The confirmation of dosing suspension homogeneity is supported by the data presented on page 8. The percent difference of all strata means with their respective overall mean is well below the 10% tolerance.

The stability of TS01010 in corn oil is established on page 9. The percent difference between the estimated and measured concentrations is less than 15% for all dosing levels.

The Summary of Analytical Results for the Concentration Study is found on page 10. The nominal concentrations of all dosing suspensions were verified by the analytical data. The percent difference between the estimated and measured concentrations is less than 15% for all dosing levels.

The table on page 11 presents the duplicate precision data. The agreement between the duplicates is excellent and well under the CLP relative percent difference guideline of 20%.

ARCHIVES

SAMPLES
The unused portion of all samples shall be stored in
for a minimum of one year after the final analytical report is issued.

RAW DATA
Calibration data; and instrument, chemical and standard logbook documentation shall be archived by ILT as facility record
all other raw data shall be archived in the Analytical Study File in ILT's Analytical Study Archives.

FINAL REPORT
A copy of the final report shall be archived with the Analytical Study File in ILT.

PROTOCOL AND SOP DEVIATIONS

There were no protocol deviations. An SOP deviation was noted during sample analysis on 5 May 2003. The ICP-AES chiller temperature, 42°C, was slightly below the range (43°C-52°C) listed in SOP EQ-114. All quality control samples and instrument checks were acceptable during the analysis, therefore it appears this deviation did not affect the data or outcome of the study.

STUDY PERSONNEL

PRINCIPAL INVESTIGATOR

ANALYST

SUPERVISORY PERSONNEL

SUMMARY OF ANALYTICAL RESULTS

CONCENTRATION OF CALCIUM IN TS01010 SUSPENSIONS

Homogeneity Study

ILT AIMS #	Date Prepared	Date Sampled	Date Analyzed	WIL Research Sample #	WIL Research Accession #	Aliquot Phase	Estimated Concentration TS01010, mg/mL	Estimated Concentration wt% Ca	Measured Concentration, wt% Ca	Strata Mean, wt% Ca	Overall Mean, wt% Ca	Percent Difference, %
3018760	07-Apr-03	07-Apr-03	11-Apr-03	RX-187032L-0001	1	Middle	0	0.000	<0.7 wt ppm			
3018761	07-Apr-03	07-Apr-03	11-Apr-03	RX-187032L-0011	1	Middle	0	0.000	<0.7 wt ppm	<0.7 wt ppm	<0.7 wt ppm	0.0
3018762	07-Apr-03	07-Apr-03	11-Apr-03	RX-187032L-0002	1	Top	6	0.027	0.027			
3018763	07-Apr-03	07-Apr-03	11-Apr-03	RX-187032L-0012	1	Top	6	0.027	0.027	0.027		3.6
3018764	07-Apr-03	07-Apr-03	11-Apr-03	RX-187032L-0003	1	Middle	6	0.027	0.028		0.028	
3018765	07-Apr-03	07-Apr-03	11-Apr-03	RX-187032L-0013	1	Middle	6	0.027	0.027	0.028		0.0
3018766	07-Apr-03	07-Apr-03	11-Apr-03	RX-187032L-0004	1	Bottom	6	0.027	0.028			
3018767	07-Apr-03	07-Apr-03	11-Apr-03	RX-187032L-0014	1	Bottom	6	0.027	0.028	0.028		0.0
3018768	07-Apr-03	07-Apr-03	11-Apr-03	RX-187032L-0005	1	Top	30	0.135	0.134			
3018769	07-Apr-03	07-Apr-03	11-Apr-03	RX-187032L-0015	1	Top	30	0.135	0.134	0.134		0.7
3018770	07-Apr-03	07-Apr-03	11-Apr-03	RX-187032L-0006	1	Middle	30	0.135	0.135		0.135	
3018771	07-Apr-03	07-Apr-03	11-Apr-03	RX-187032L-0016	1	Middle	30	0.135	0.134	0.135		0.0
3018772	07-Apr-03	07-Apr-03	11-Apr-03	RX-187032L-0007	1	Bottom	30	0.135	0.137			
3018773	07-Apr-03	07-Apr-03	11-Apr-03	RX-187032L-0017	1	Bottom	30	0.135	0.135	0.136		0.7
3018774	07-Apr-03	07-Apr-03	11-Apr-03	RX-187032L-0008	1	Top	100	0.447	0.448			
3018775	07-Apr-03	07-Apr-03	11-Apr-03	RX-187032L-0018	1	Top	100	0.447	0.446	0.447		1.5
3018776	07-Apr-03	07-Apr-03	11-Apr-03	RX-187032L-0009	1	Middle	100	0.447	0.457		0.454	
3018777	07-Apr-03	07-Apr-03	11-Apr-03	RX-187032L-0019	1	Middle	100	0.447	0.460	0.459		1.1
3018778	07-Apr-03	07-Apr-03	11-Apr-03	RX-187032L-0010	1	Bottom	100	0.447	0.457			
3018779	07-Apr-03	07-Apr-03	11-Apr-03	RX-187032L-0020	1	Bottom	100	0.447	0.457	0.457		0.7

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PERCENT DIFFERENCE CALCULATION
Absolute value (((Overall Mean-Strata Mean)/Overall Mean)*100)

SUMMARY OF ANALYTICAL RESULTS

CONCENTRATION OF CALCIUM IN TS01010 SUSPENSIONS

Stability Study

ILT AIMS #	Date Prepared	Date Sampled	Date Analyzed	WIL Research Sample #	WIL Research Accession #	Aliquot Phase	Estimated Concentration TS01010, mg/mL	Estimated Concentration wt% Ca	Measured Concentration, wt% Ca	Percent Difference, %
3018762	07-Apr-03	07-Apr-03	11-Apr-03	RX-187032L-0002	1	Top	6	0.027	0.027	0.0
3018762	07-Apr-03	07-Apr-03	21-Apr-03	RX-187032L-0002	1	Top	6	0.027	0.027	0.0
3018763	07-Apr-03	07-Apr-03	11-Apr-03	RX-187032L-0012	1	Top	6	0.027	0.027	0.0
3018763	07-Apr-03	07-Apr-03	21-Apr-03	RX-187032L-0012	1	Top	6	0.027	0.028	3.7
3018764	07-Apr-03	07-Apr-03	11-Apr-03	RX-187032L-0003	1	Middle	6	0.027	0.028	3.7
3018764	07-Apr-03	07-Apr-03	21-Apr-03	RX-187032L-0003	1	Middle	6	0.027	0.028	3.7
3018765	07-Apr-03	07-Apr-03	11-Apr-03	RX-187032L-0013	1	Middle	6	0.027	0.027	0.0
3018765	07-Apr-03	07-Apr-03	21-Apr-03	RX-187032L-0013	1	Middle	6	0.027	0.028	3.7
3018766	07-Apr-03	07-Apr-03	11-Apr-03	RX-187032L-0004	1	Bottom	6	0.027	0.028	3.7
3018766	07-Apr-03	07-Apr-03	21-Apr-03	RX-187032L-0004	1	Bottom	6	0.027	0.028	3.7
3018767	07-Apr-03	07-Apr-03	11-Apr-03	RX-187032L-0014	1	Bottom	6	0.027	0.028	3.7
3018767	07-Apr-03	07-Apr-03	21-Apr-03	RX-187032L-0014	1	Bottom	6	0.027	0.027	0.0
3018768	07-Apr-03	07-Apr-03	11-Apr-03	RX-187032L-0005	1	Top	30	0.135	0.134	0.7
3018768	07-Apr-03	07-Apr-03	21-Apr-03	RX-187032L-0005	1	Top	30	0.135	0.135	0.0
3018769	07-Apr-03	07-Apr-03	11-Apr-03	RX-187032L-0015	1	Top	30	0.135	0.134	0.7
3018769	07-Apr-03	07-Apr-03	21-Apr-03	RX-187032L-0015	1	Top	30	0.135	0.135	0.0
3018770	07-Apr-03	07-Apr-03	11-Apr-03	RX-187032L-0006	1	Middle	30	0.135	0.135	0.0
3018770	07-Apr-03	07-Apr-03	21-Apr-03	RX-187032L-0006	1	Middle	30	0.135	0.137	1.5
3018771	07-Apr-03	07-Apr-03	11-Apr-03	RX-187032L-0016	1	Middle	30	0.135	0.134	0.7
3018771	07-Apr-03	07-Apr-03	21-Apr-03	RX-187032L-0016	1	Middle	30	0.135	0.136	0.7
3018772	07-Apr-03	07-Apr-03	11-Apr-03	RX-187032L-0007	1	Bottom	30	0.135	0.137	1.5
3018772	07-Apr-03	07-Apr-03	21-Apr-03	RX-187032L-0007	1	Bottom	30	0.135	0.134	0.7
3018773	07-Apr-03	07-Apr-03	11-Apr-03	RX-187032L-0017	1	Bottom	30	0.135	0.135	0.0
3018773	07-Apr-03	07-Apr-03	21-Apr-03	RX-187032L-0017	1	Bottom	30	0.135	0.134	0.7
3018774	07-Apr-03	07-Apr-03	11-Apr-03	RX-187032L-0008	1	Top	100	0.447	0.448	0.2
3018774	07-Apr-03	07-Apr-03	21-Apr-03	RX-187032L-0008	1	Top	100	0.447	0.448	0.2
3018775	07-Apr-03	07-Apr-03	11-Apr-03	RX-187032L-0018	1	Top	100	0.447	0.446	0.2
3018775	07-Apr-03	07-Apr-03	21-Apr-03	RX-187032L-0018	1	Top	100	0.447	0.448	0.2
3018776	07-Apr-03	07-Apr-03	11-Apr-03	RX-187032L-0009	1	Middle	100	0.447	0.457	2.2
3018776	07-Apr-03	07-Apr-03	21-Apr-03	RX-187032L-0009	1	Middle	100	0.447	0.443	0.9
3018777	07-Apr-03	07-Apr-03	11-Apr-03	RX-187032L-0019	1	Middle	100	0.447	0.460	2.9
3018777	07-Apr-03	07-Apr-03	21-Apr-03	RX-187032L-0019	1	Middle	100	0.447	0.449	0.4
3018778	07-Apr-03	07-Apr-03	11-Apr-03	RX-187032L-0010	1	Bottom	100	0.447	0.457	2.2
3018778	07-Apr-03	07-Apr-03	21-Apr-03	RX-187032L-0010	1	Bottom	100	0.447	0.450	0.7
3018779	07-Apr-03	07-Apr-03	11-Apr-03	RX-187032L-0020	1	Bottom	100	0.447	0.457	2.2
3018779	07-Apr-03	07-Apr-03	21-Apr-03	RX-187032L-0020	1	Bottom	100	0.447	0.444	0.7

PERCENT DIFFERENCE CALCULATION

Absolute value (((Estimated Concentration-Measured Concentration)/Estimated Concentration)*100)

SUMMARY OF ANALYTICAL RESULTS

CONCENTRATION OF CALCIUM IN TS01010 SUSPENSIONS

Concentration Study

ILT AIMS #	Date Prepared	Date Sampled	Date Analyzed	WIL Research Sample #	WIL Research Accession #	Aliquot Phase	Estimated Concentration TS01010, mg/mL	Estimated Concentration wt% Ca	Measured Concentration, wt% Ca	Percent Difference, %
3021433	21-Apr-03	21-Apr-03	25-Apr-03	RX-187032L-0031	2	Middle	0	0.000	<0.7 wt ppm	*
3021434	21-Apr-03	21-Apr-03	25-Apr-03	RX-187032L-0032	2	Middle	6	0.027	0.026	3.7
3021435	21-Apr-03	21-Apr-03	25-Apr-03	RX-187032L-0033	2	Middle	30	0.135	0.127	5.9
3021436	21-Apr-03	21-Apr-03	25-Apr-03	RX-187032L-0034	2	Middle	100	0.447	0.421	5.8
3023039	21-Apr-03	28-Apr-03	05-May-03	RX-187032L-0039	3	Middle	0	0.000	<0.7 wt ppm	*
3023040	21-Apr-03	28-Apr-03	02-May-03	RX-187032L-0040	3	Middle	6	0.027	0.025	7.4
3023041	21-Apr-03	28-Apr-03	02-May-03	RX-187032L-0041	3	Middle	30	0.135	0.126	6.7
3023042	21-Apr-03	28-Apr-03	02-May-03	RX-187032L-0042	3	Middle	100	0.447	0.413	7.6
3023043	28-Apr-03	28-Apr-03	05-May-03	RX-187032L-0047	4	Middle	0	0.000	<0.7 wt ppm	*
3023044	28-Apr-03	28-Apr-03	02-May-03	RX-187032L-0048	4	Middle	6	0.027	0.026	3.7
3023045	28-Apr-03	28-Apr-03	02-May-03	RX-187032L-0049	4	Middle	30	0.135	0.130	3.7
3023046	28-Apr-03	28-Apr-03	02-May-03	RX-187032L-0050	4	Middle	100	0.447	0.425	4.9
3024224	28-Apr-03	05-May-03	09-May-03	RX-187032L-0055	5	Middle	0	0.000	<0.7 wt ppm	*
3024225	28-Apr-03	05-May-03	09-May-03	RX-187032L-0056	5	Middle	6	0.027	0.027	0.0
3024226	28-Apr-03	05-May-03	09-May-03	RX-187032L-0057	5	Middle	30	0.135	0.134	0.7
3024228	28-Apr-03	05-May-03	09-May-03	RX-187032L-0058	5	Middle	100	0.447	0.429	4.0
3024229	05-May-03	05-May-03	09-May-03	RX-187032L-0063	6	Middle	0	0.000	<0.7 wt ppm	*
3024230	05-May-03	05-May-03	09-May-03	RX-187032L-0064	6	Middle	6	0.027	0.027	0.0
3024231	05-May-03	05-May-03	09-May-03	RX-187032L-0065	6	Middle	30	0.135	0.136	0.7
3024232	05-May-03	05-May-03	09-May-03	RX-187032L-0066	6	Middle	100	0.447	0.437	2.2
3025662	05-May-03	11-May-03	16-May-03	RX-187032L-0071	7	Middle	0	0.000	<0.7 wt ppm	*
3025665	05-May-03	11-May-03	16-May-03	RX-187032L-0072	7	Middle	6	0.027	0.026	3.7
3025666	05-May-03	11-May-03	16-May-03	RX-187032L-0073	7	Middle	30	0.135	0.133	1.5
3025667	05-May-03	11-May-03	16-May-03	RX-187032L-0074	7	Middle	100	0.447	0.443	0.9

PERCENT DIFFERENCE CALCULATION

Absolute value (((Estimated Concentration-Measured Concentration)/Estimated Concentration)*100)

* - not a significant difference

SUMMARY OF ANALYTICAL RESULTS

CONCENTRATION OF CALCIUM IN TS01010 SUSPENSIONS

Duplicate Analysis

ILT AIMS #	Date Prepared	Date Sampled	Date Analyzed	WIL Research Sample #	WIL Research Accession #	Aliquot Phase	Estimated Concentration TS01010, mg/mL	Estimated Concentration wt% Ca	Measured Concentration, wt% Ca	Relative Percent Difference, %
3018761	07-Apr-03	07-Apr-03	11-Apr-03	RX-187032L-0011	1	Middle	0	0.000	<0.7 wt ppm	
3018761-Dup	07-Apr-03	07-Apr-03	11-Apr-03	RX-187032L-0011	1	Middle	0	0.000	<0.7 wt ppm	0.0
3018770	07-Apr-03	07-Apr-03	21-Apr-03	RX-187032L-0006	1	Middle	30	0.135	0.137	
3018770-Dup	07-Apr-03	07-Apr-03	21-Apr-03	RX-187032L-0006	1	Middle	30	0.135	0.135	1.5
3021433	21-Apr-03	21-Apr-03	25-Apr-03	RX-187032L-0031	2	Middle	0	0.000	<0.7 wt ppm	
3021433-Dup	21-Apr-03	21-Apr-03	25-Apr-03	RX-187032L-0031	2	Middle	0	0.000	<0.7 wt ppm	0.0
3021434	21-Apr-03	21-Apr-03	25-Apr-03	RX-187032L-0032	2	Middle	6	0.027	0.026	
3021434-Dup	21-Apr-03	21-Apr-03	25-Apr-03	RX-187032L-0032	2	Middle	6	0.027	0.027	3.8
3021435	21-Apr-03	21-Apr-03	25-Apr-03	RX-187032L-0033	2	Middle	30	0.135	0.127	
3021435-Dup	21-Apr-03	21-Apr-03	25-Apr-03	RX-187032L-0033	2	Middle	30	0.135	0.130	2.3
3021436	21-Apr-03	21-Apr-03	25-Apr-03	RX-187032L-0034	2	Middle	100	0.447	0.421	
3021436-Dup	21-Apr-03	21-Apr-03	25-Apr-03	RX-187032L-0034	2	Middle	100	0.447	0.430	2.1
3025662	05-May-03	11-May-03	16-May-03	RX-187032L-0071	7	Middle	0	0.000	<0.7 wt ppm	
3025662-Dup	05-May-03	11-May-03	16-May-03	RX-187032L-0071	7	Middle	0	0.000	<0.7 wt ppm	0.0

RELATIVE PERCENT DIFFERENCE CALCULATION

Absolute value (((First Measured Concentration-Duplicate Measured Concentration)/((First Measured Concentration+Duplicate Measured Concentration)/2))*100)

APPENDIX C

Animal Room Environmental Conditions

PUBERTAL ASSAY OF SP 7077 (TS01010) IN JUV. FEMALE RATS
TEMPERATURE/HUMIDITY - DAILY SUMMARY REPORT BY STUDY

STUDY SPECIFICATIONS: 187032

DATE IN: 04/10/03 TIME IN: 11:00
DATE OUT: 05/12/03 TIME OUT: 11:00

ROOM SPECIFICATIONS: B ROOM 43
SPECIES: RAT

LOW TEMPERATURE °F: 66.0 HIGH TEMPERATURE °F: 76.0 LOW HUMIDITY: 30.0
LOW TEMPERATURE °C: 18.9 HIGH TEMPERATURE °C: 24.4 HIGH HUMIDITY: 70.0

	TEMPERATURE		HUMIDITY
DATE	MEAN (°F)	MEAN (°C)	MEAN (%RH)
10-Apr-03	70.8	21.6	35.9
11-Apr-03	70.8	21.5	33.9
12-Apr-03	70.8	21.6	35.2
13-Apr-03	70.6	21.5	34.7
14-Apr-03	70.8	21.6	37.3
15-Apr-03	70.8	21.6	36.5
16-Apr-03	70.7	21.5	40.0
17-Apr-03	70.8	21.6	38.1
18-Apr-03	70.8	21.5	41.0
19-Apr-03	70.8	21.5	43.3
20-Apr-03	70.8	21.5	46.4
21-Apr-03	70.8	21.5	41.5
22-Apr-03	70.8	21.5	37.1
23-Apr-03	70.7	21.5	35.9
24-Apr-03	70.8	21.6	34.9
25-Apr-03	70.7	21.5	34.6
26-Apr-03	70.7	21.5	35.1
27-Apr-03	70.7	21.5	33.4
28-Apr-03	70.8	21.6	39.5
29-Apr-03	70.8	21.6	42.2
30-Apr-03	70.7	21.5	47.7
01-May-03	70.7	21.5	52.8
02-May-03	70.8	21.5	50.4

NOTE: + = VALUE WAS GREATER THAN HIGH RANGE
- = VALUE WAS LESS THAN LOW RANGE
NOTE: MEANS REPRESENT THE MEAN OF THE DAILY VALUES

REPORT 4
VERSION 1.07
5/28/03 08:48

STUDY SPECIFICATIONS: 187032

DATE IN: 04/10/03 TIME IN: 11:00
DATE OUT: 05/12/03 TIME OUT: 11:00

ROOM SPECIFICATIONS: B ROOM 43
SPECIES: RAT

LOW TEMPERATURE °F: 66.0 HIGH TEMPERATURE °F: 76.0 LOW HUMIDITY: 30.0
LOW TEMPERATURE °C: 18.9 HIGH TEMPERATURE °C: 24.4 HIGH HUMIDITY: 70.0

	TEMPERATURE		HUMIDITY
DATE	MEAN (°F)	MEAN (°C)	MEAN (%RH)
03-May-03	70.8	21.6	43.2
04-May-03	70.8	21.5	42.7
05-May-03	70.7	21.5	50.9
06-May-03	70.7	21.5	52.1
07-May-03	70.7	21.5	51.8
08-May-03	70.7	21.5	51.8
09-May-03	70.8	21.5	51.7
10-May-03	70.7	21.5	51.7
11-May-03	70.7	21.5	47.8
12-May-03	70.9	21.6	43.3

GRAND STATS	MEAN	MIN	MAX
TEMPERATURE °F	70.8	70.6	70.9
TEMPERATURE °C	21.5	21.5	21.6
HUMIDITY (%RH)	42.3	33.4	52.8
N DAYS	33		

NOTE: + = VALUE WAS GREATER THAN HIGH RANGE
- = VALUE WAS LESS THAN LOW RANGE
NOTE: MEANS REPRESENT THE MEAN OF THE DAILY VALUES

ROOM SPECIFICATIONS:	B ROOM 43		
SPECIES:	RAT		
LOW TEMPERATURE:	66.0	DATE IN:	04/10/03
HIGH TEMPERATURE:	76.0	TIME IN:	11:00
LOW HUMIDITY:	30.0	DATE OUT:	05/12/03
HIGH HUMIDITY:	70.0	TIME OUT:	11:00

ROOM B ROOM 43 SUMMARY

	TEMPERATURE	HUMIDITY
MEAN	70.8	42.3
MIN	69.0	26.5
MAX	72.4	64.5
SD	0.27	7.37
N SAMPLES	763	763
FIRST DAY	04/10/03	
LAST DAY	05/12/03	
N DAYS	33	

NOTE: TEMPERATURE UNITS = DEGREES FAHRENHEIT
HUMIDITY UNITS = % RELATIVE HUMIDITY
NOTE: MEANS REPRESENT THE MEAN OF ALL VALUES

STUDY 187032 SUMMARY

MEAN	70.8	42.3
MIN	69.0	26.5
MAX	72.4	64.5
SD	0.27	7.37
N SAMPLES	763	763
FIRST DAY	04/10/03	
LAST DAY	05/12/03	
N DAYS	33	

NOTE: TEMPERATURE UNITS = DEGREES FAHRENHEIT
HUMIDITY UNITS = % RELATIVE HUMIDITY
NOTE: MEANS REPRESENT THE MEAN OF ALL VALUES

APPENDIX D

.eproductive Historical Control Data [Crl:CD®(SD)IGS BR Rats]

Reproductive Historical Control Data
CD®(SD)IGS BR Rats

GRAND MEAN SUMMARY
PARENTAL AND NEONATAL OBSERVATIONS

ENDPOINT	Mean	SD	Min	Max	25th Quartile	75th Quartile
MEAN NO. PUPS BORN	14.2	1.02	12.0	16.3	13.4	15.0
PUP SURVIVAL INDICES (PND)						
BIRTH-4 (BEFORE SELECTION)	96.2	2.05	91.3	99.3	95.3	97.6
DAYS 4-21 (AFTER SELECTION)	98.9	1.45	95.4	100	98.7	100.0
MEAN PUP WEIGHTS (g) MALE (PND)						
DAY 1	7.0	0.23	6.5	7.4	6.8	7.1
DAY 4 (BEFORE SELECTION)	9.9	0.57	8.6	10.7	9.5	10.4
DAY 7	15.4	1.67	11.7	17.8	15.1	16.6
DAY 14	31.0	3.91	22.5	36.5	28.0	33.6
DAY 21	48.6	6.05	34.9	58	45.3	52.9
MEAN PUP WEIGHTS (g) FEMALE (PND)						
DAY 1	6.6	0.22	6.1	6.9	6.4	6.7
DAY 4 (BEFORE SELECTION)	9.3	0.54	8.1	10	9.0	9.7
DAY 7	14.6	1.60	11	16.8	14.1	15.9
DAY 14	29.7	3.82	21.2	34.7	26.6	32.2
DAY 21	46.4	5.70	33.3	54.8	43.6	50.7
ANOGENITAL DISTANCE (PND 1)						
MALE	5.3	0.32	4.8	5.7	5.3	5.3
FEMALE	3.2	0.43	2.7	3.9	3.1	3.3
MEAN BALANOPREPUTIAL SEPARATION (PND)	44.7	2.18	41.6	49	43.2	46.4
MEAN BODY WEIGHT AT ACQUISITION	227.8	11.70	210.5	248	221.7	230.8
MEAN VAGINAL PATENCY (PND)	33.3	1.68	31.9	38.8	32.5	33.3
MEAN BODY WEIGHT AT ACQUISITION	111.5	6.36	102.8	119.5	106.5	118.0

APPENDIX E

Study Protocol

PROTOCOL AMENDMENT II

Sponsor Study No.: 03-002

A. Title of Study:

A Female Pubertal Assay of SP 7077 (TS01010) Administered Orally in Juvenile Female Rats

B. Protocol Modification:

1) **VII. Experimental Design:**

F. General Observations During the Experimental Period:

4. Determination of Estrous Cycles:

Please add the following sentence:

The mean age of first estrus will be determined.

2) **X. Statistical Methods:**

Please add the following sentence:

The mean age of first estrus will be analyzed by a parametric one-way analysis of variance (ANOVA)[2] to determine intergroup difference. If the results of the ANOVA are significant ($p<0.05$), Dunnett's test[3] will be applied to the data to compare the treated groups to the control group.

C. Reasons for Protocol Modifications:

1 & 2) To add determination of mean age of first estrus to the parameters to be evaluated and describe the method of statistical analysis.

Approved By:

PROTOCOL AMENDMENT I

Sponsor Study No.:03-002

A. Title of Study:

A Female Pubertal Assay of SP 7077 (TS01010) Administered Orally in Juvenile Female Rats

B. Protocol Modification:

1) The title of the study is corrected to the following:

A Female Pubertal Assay of SP 7077 (TS01010) Administered Orally in Juvenile Female Rats

2) **III. Study Schedule:**

Proposed Experimental Termination Date: May 12, 2003

3) **V. Test System:**

D. Number on Study:

The 3rd sentence is replaced with the following:

The immature females were 10 days old upon receipt.

C. Reasons for Protocol Modifications:

1) To correct a typographical error in the study title.

2) To correct the proposed experimental termination date.

3) All immature females were 10 days old upon receipt.

Approved By:

PROTOCOL

A FEMALE PUBERTAL ASSAY OF SP 7077 (TS01010) ADMINISTERED ORALLY IN JUVENILE FEMALE i9RATS

Sponsor Study Number: 03-002

Submitted To:

III. **Study Schedule:**

Proposed Animal Receipt Date:	April 10, 2003
Proposed Experimental Start Date:	April 22, 2003
Proposed Experimental Termination Date:	May 13, 2003
Proposed Audited Report Date:	June 27, 2003

IV. **Test Article Data:**

A. Identification:	SP 7077 (TS01010)
B. Lot Number:	TS01010
C. Purity:	100%
D. Stability:	The test article is considered to be stable under the storage conditions provided by the Sponsor.

E. Physical Description:	Dark brown viscous liquid
F. Storage Conditions:	Store at ambient conditions.
G. Reserve Samples:	Reserve samples of the test article will be taken in accordance with standard operating procedures and stored in the Archives indefinitely unless otherwise specified.
H. Personnel Safety Data:	To be provided by the Sponsor. It is the responsibility of the Sponsor to notify the testing facility of any special handling requirements for the test article. A material safety data sheet (MSDS) should accompany the test article upon arrival at the laboratory.

V. Test System:

A. Species:	Rat.
B. Strain:	Sprague-Dawley Crl:CD®(SD)IGS BR.
C. Source:	Charles River Laboratories Portage, Michigan
D. Number on Study:	60 Females (maximum of 80 females and 8 dams purchased). Immature females will be supplied in litters of 10 animals with their own or another (fostering) dam. The immature females will be 9-10 days old upon receipt. Animals not assigned to the study will be transferred to the stock animal colony or will be euthanized by carbon dioxide inhalation and the carcasses discarded.
E. Body Weight Range:	At randomization: 30-50 g. All animals assigned to study will be approximately ± 5 g of the mean.
F. Age:	At start of dosing animals will be 22 days of age.

G. Identification System: The maternal animals will be uniquely identified by a Monel® metal eartag displaying the animal number. The pups will be identified by tail tattoo. Individual cage cards will be affixed to each cage and will display the animal number, group number, study number, dosage level and sex of the animal.

H. Justification for Selection: This species and strain of animal is recognized as appropriate for reproduction studies. nas reproductive historical control data in this species and strain of rat. This animal model has been proven to be susceptible to the effects of reproductive toxicants.

VI. Specific Maintenance Schedule:

A. Animal Housing:

All animals will be initially housed by litter with their own or another (fostering) dam in plastic maternity cages containing ground corncob nesting material (Bed-O'Cobs®). Following randomization, the juvenile female animals will be weaned and housed three animals per cage in plastic maternity (shoebox) cages. The cage bedding will be changed at least three times each week. The cages will be subjected to routine cleaning at a frequency consistent with maintaining good animal health and WIL standard operating procedures. The f : fully accredited by the Association to Assessment and Accreditation of Laboratory Animal Care International (AAALAC International).

B. Environmental Conditions:

Controls will be set to maintain an average daily temperature of 71 ± 5°F (22 ± 3°C) and an average daily relative humidity of 50 ± 20%. Temperature and relative humidity will be monitored continuously. Data for these two parameters will be scheduled for automatic collection on an hourly basis. Fluorescent lighting controlled by light timers will provide illumination for a 12-hour light/dark photoperiod. Temporary adjustments to the light/dark cycles may be made to accommodate protocol-specified activities. The ventilation rate will be set at a minimum of 10 room air changes per hour, 100% fresh air.

C. Drinking Water:

Reverse osmosis-purified water will be available *ad libitum*. Filters servicing the automatic watering system are changed regularly according to [illegible] andard operating procedures. The municipal water supplying the laboratory is analyzed according [illegible] andard operating procedures on a routine basis to assure that contaminants are not present in concentrations that would be expected to affect the outcome of the study.

D. Basal Diet:

PMI Nutrition International, LLC Certified Rodent LabDiet® 5002 will be offered *ad libitum* during the study. Periodic analyses of the certified feed are performed by the manufacturer to ensure that heavy metals and pesticides are not present at concentrations that would be expected to affect the outcome of the study. Results of the analyses are provided to WIL Research Laboratories, Inc. by the manufacturer and will be placed in the study records. Feeders will be changed and sanitized once per week.

VII. Experimental Design:

A. Animal Receipt and Quarantine:

Each animal will be inspected by a qualified technician upon receipt. Rats judged to be in good health and suitable as test animals will be immediately placed in quarantine for a minimum of nine days. All rats will be initially sexed and weighed. Maternal animals will be permanently identified with a metal ear tag, and juvenile animals will be identified by tail tattoo. During the quarantine period, each rat will be observed twice daily for changes in general appearance and behavior. Prior to the start of the in-life phase, those animals judged to be suitable test subjects will be identified and receive a detailed physical examination at the time of animal selection for randomization.

B. Randomization:

At the conclusion of the quarantine period (animals 21 days of age), animals judged to be suitable test subjects and meeting acceptable body weight requirements, will be assigned at random using a computer program. At that time, the animal numbers and corresponding body weights will be entered into the WIL Toxicology Data Management System (WTDMS™). A printout containing the animal numbers and individual group assignments wil generated based on body weight stratification into a block design. Animals then be weaned and arranged into the groups according to the printout. Ea 4 groups will consist of fifteen females. If after randomization statist

significant differences between groups exist, new randomizations will be generated until group mean body weights are homogeneous.

C. Route and Rationale of Test Article Administration:

The route of administration will be oral (gavage). Historically, this route has been used extensively for studies of this nature. Appropriate-sized steel, ball-tipped, flexible Teflon® dosing cannulae will be used for the oral administration by gavage. Any losses, or incomplete dosing will be recorded.

D. Organization of Test Groups, Dosage Levels and Treatment Regimen:

1. Organization of Test Groups:

The dosage levels were determined from the results of previous studies and were provided by the Sponsor Representative after consultation with the Study Director. The following table presents the study group arrangement.

Group Number	Test Article	Dosage Level (mg/kg/day)	Dose Concentration (mg/ml)	Dose Volume (ml/kg)	Number of Females
1	Corn Oil	0	0	5	15
2	TS01010	30	6	5	15
3	TS01010	150	30	5	15
4	TS01010	500	100	5	15

2. Vehicle Control Article:

Corn oil.

3. Treatment Regimen:

The test and control articles will be administered as single daily doses beginning on day 22 of age and continuing through 41 days of age. All animals will be dosed at approximately the same time each day, and the time of dosing will be recorded for each animal.

4. Adjustment of Dosages:

Individual doses will be calculated based on each daily body weight to provide the proper dosage. Individual animal body weights and individual animal dosages will be recorded.

E. Preparation and Analysis of Test Article Formulations:

1. Method and Frequency of Preparation:

Based on the physical characteristics of the test article, appropriate methods will be used to ensure the best possible formulations of the test article in the vehicle. Dosing formulations of the test article will be prepared weekly. The study director or the deputy director or designee will visually inspect the formulations prior to initiation of dosing. This visual inspection will be performed to assure that the formulations are visibly homogeneous and acceptable for dosing. Any special procedures required for formulation will be documented according to Good Laboratory Practices and presented in the final report of this study.

2. Homogeneity and Stability of Test Article Formulation:

Dosing mixture homogeneity will be collected prior to the initiation of test article administration. While undergoing stirring in the beaker, the following sample aliquots (5 mL) will be drawn for analysis: control, three aliquots (from the middle); all treatment groups, nine aliquots (3 each from the top, middle and bottom). Two of the three samples will be sent to [redacted] for analysis of homogeneity and stability over a ten-day period. The samples will be shipped under ambient conditions. The remaining sample from each dose level and strata will be stored under normal laboratory conditions for possible future analysis.

3. Concentration Analysis:

Samples of the dosing mixtures will be collected on the first and last day of each weekly preparation. At each time point, two 5-mL aliquots will be taken from each dose level (middle stratum), including the control group. The dosing mixture will be thoroughly mixed before taking each sample. One sample from each dose level will be analyzed; the remaining sample will be retained by the Testing Laboratory for possible future analysis.

Dosing mixture samples for homogeneity, stability and concentration of the test article at all dose levels, including the control, will be analyzed by the Sponsor. The methods employed will be one or more of the following:

Concentration and stability data will be evaluated using percent difference. The acceptable tolerance between the theoretical and measured values is 15%.

Mixtures will be considered homogeneous if the difference between the overall group mean and the strata mean is 10% or less.

4. Sample Handling and Shipment:

Each 5-mL sample will be placed in a glass vial with a Teflon-lined lid. The vial plus sample weight will be recorded with an accuracy of ± 0.0005 g. Each sample will be stored at ambient temperature. Each sample container will be labeled with the following information:

Accession Number
Sponsor's Reference Number
Testing Laboratory Study Number
Test Article Name
Dose Level (mg/kg)
Dosing Mixture Concentration (mg/mL)
Preparation Date
Sampling Date
Weight of Sample

The sample shall be packed in a suitable container to maintain the temperature conditions specified in Section IV.F. during transit plus an adequate margin of safety for any transit delays. The sample shall be sent by express courier to:

is notification shall include test article and study identification, carrier, and estimated time/date of arrival. Sample shipments shall be accompanied by an inventory sheet describing the samples contained in the shipment with the information described above.

F. General Observations During the Experimental Period:

1. Clinical Signs:

The rats will be observed twice daily for appearance, behavior, moribundity and mortality. A detailed physical examination will be conducted at the time of randomization. Clinical observations regarding general appearance and behavior will be recorded daily prior to dosing. During the treatment period, the rats will be observed also approximately one hour following dosing and the observations will be recorded. Additional post-dosing observation periods may be necessary and will be documented in the study records. Observations shall include, but are not limited to, evaluations for changes in appearance of the skin and fur, eyes and mucous membranes, respiratory, circulatory, autonomic and central nervous system functions, somatomotor activity and behavior patterns. Observations will be recorded.

2. Body Weights:

Daily body weights will be recorded individually (to the nearest 0.1 gram PND 22-42, with the exception of the weight collected the day prior to dosing and the final body weight) beginning one day prior to the start of dosing. Final body weights will be collected prior to euthanasia.

3. Vaginal Perforation:

Each female pup (15/group) will be observed daily for vaginal perforation beginning on PND 25 as described by Adams et al.[1] Examination of the females will continue daily until vaginal perforation is present. The body weight of each female will be recorded on the day of acquisition of vaginal perforation.

4. Determination of Estrous Cycles:

Daily vaginal smears will be performed to determine the stage of estrus beginning on the day vaginal perforation is observed. Smearing will continue through the day of necropsy.

G. Euthanasia:

On PND 42, the animals will be euthanized by carbon dioxide inhalation, and the time of euthanasia will be recorded for each animal. Any animals not expected to survive until the following dosing period or until the scheduled euthanasia will be euthanized as described above.

VIII. Anatomic Pathology:

A. Macroscopic Examination:

A complete necropsy examination will be conducted on all animals dying spontaneously or euthanized *in extremis*. This will include examination of the external surface, all orifices, the external surface of the brain and spinal cord and the thoracic, abdominal and pelvic cavities including viscera. A complete necropsy will not be conducted on animals surviving to study termination. The following tissues will be collected and placed in 10% neutral-buffered formalin:

Ovaries	Uterine Horns (Four sections per horn)
Cervix and Uterine Body (Two sections)	Vagina
Thyroid	All gross (internal) lesions

B. Organ Weights:

1. Uterine Weights:

Wet and blotted uterine weights will be measured for all animals surviving to the scheduled necropsy. Uterine weights will not be collected for any animals found dead or euthanized *in extremis*.

The uterus will be harvested from all animals using the following procedure. The harvesting of uteri will be performed in the same sequence as which dosing occurred. The pubic symphysis will be opened and each ovary and uterine horn will be detached from the dorsal abdominal wall. The ovaries are separated from the uterine horns at the oviduct/uterus junction. The urinary bladder and ureters will be removed from the ventral and lateral side of the uterus and vagina. The fibrous adhesion between the rectum and vagina is then detached until the junction of the vaginal orifice and perineal skin is identified. The uterus and vagina are detached from the body by incising the vaginal wall just above the junction between the perineal skin. The excess fat and adnexa will be trimmed away. The vagina is then removed from the uterus, leaving the cervix intact and attached to the uterus for uterus weight measurement. Care is to be taken during uterus harvesting such that the luminal contents are retained. A record will be made if any luminal contents are lost. The uterus will be transferred to a uniquely marked and tared plastic Petri dish with care to avoid desiccation before weighing. The Petri dish should be lined with saline-moistened filter paper (or equivalent) and covered to minimize desiccation.

The uterus harvesting and weighing procedure will be done in the order described below.

1. Animal is euthanized and uterus harvested.
2. Uterus (with luminal fluid) is immediately transferred to a Petri dish (lined with saline-moistened filter paper or equivalent) that was tared immediately prior to the transfer.
3. The uterus' wet weight is recorded to the nearest 0.1 mg.
4. The uterus is opened and blotted (see below).
5. The uterus is placed in a Petri dish (lined with saline-moistened filter paper or equivalent) that was tared immediately prior to the transfer.
6. The uterus' blotted weight is recorded to the nearest 0.1 mg.

Immediately following collection of the wet weight, the uterus will be individually processed by opening the uterine wall and carefully blotting the excess fluid. Both uterine horns will be pierced and cut longitudinally with small surgical scissors, placed on filter paper (ex. Whatman No. 3) and gently pressed with another piece of dry filter paper to absorb the luminal fluid. The procedure will not be so severe as to render the tissue unacceptable for histopathologic analysis, as this additional investigation may be performed at the discretion of the Sponsor (by protocol amendment).

2. Ovary, Liver, Pituitary and Adrenal Weights:

The following organs from all females euthanized at scheduled termination will be weighed (to the nearest 0.1 mg):

Ovaries
Liver
Pituitary gland
Adrenal glands

To minimize systematic bias in the weighing procedures, organ harvesting and weighing procedures will be divided as equally as possible among the prosecting and weighing technicians, such that all animals from a group are not processed by a single individual.

C. Microscopic Examination:

Following collection of wet uterine weight, blotting of the uterus and collection of blotted uterine weight, each uterus will be placed in a uniquely identified jar of 10% neutral-buffered formalin and preserved for possible

microscopic examination. The vagina, ovaries, and thyroid from each animal will be similarly preserved with the uterus.

Microscopic examination of hematoxylin-eosin stained paraffin sections may be performed on the following tissues from all animals at the discretion of the Sponsor (additional cost).

Ovaries	Uterine Horns (Four sections per horn)
Cervix and Uterine Body (Two sections)	Vagina (Two sections)
Thyroid	All gross (internal) lesions

IX. Duration of Study:

The conduct of this study will require approximately five weeks for acclimation, dosing and necropsy.

X. Statistical Methods:

Body weights, body weight gains, organ weights, uterine weights (wet and blotted), luminal fluid weights, mean days of acquisition of vaginal perforation and estrous cycle length will be analyzed by a parametric one-way analysis of variance (ANOVA)[2] to determine intergroup difference. If the results of the ANOVA are significant ($p<0.05$), Dunnett's test[3] will be applied to the data to compare the treated groups to the control group.

XI. Quality Assurance:

The study will be audited by the Quality Assurance Unit while in progress to assure compliance with the study protocol and protocol amendments, WIL standard operating procedures and the appropriate provisions of EPA/TSCA and FIFRA Good Laboratory Practice Standards published in the Federal Register (40 CFR Part 792 and 40 CFR Part 160) and the OECD Good Laboratory Practice Regulations [C (97) 186/Final]. The raw data and draft report will be audited by the WIL Quality Assurance Unit prior to submission to the Sponsor Representative to assure that the final report accurately describes the conduct and the findings of the study.

This study will be included on the master list of regulated studies.

XII. Records to be Maintained:

All original raw data records, as defined by WIL SOPs and the applicable GLPs, will be stored as described in Section XIII. in the Archives a

XIII. Work Product:

The Sponsor will have title to all documentation records, raw data, slides, specimens and other work product generated during the performance of the study. All work product, including raw paper data, pertinent electronic storage media and specimens will be returned to the Sponsor after a period of six months or following issuance of the final report. All work product will be stored in compliance with regulatory requirements.

Any work product, including documents, specimens, and samples, that are required by this protocol, its amendments, or other written instructions of the Sponsor, to be shipped [illegible] to another location will be appropriately packaged and labeled as defined by [illegible] SOPs and delivered to a common carrier for shipment. [illegible] will not be responsible for shipment following delivery to the common carrier.

XIV. Reports:

The final report will consist of an abbreviated summary report, including data tables and an interpretation and discussion of the study results.

[illegible] es will provide one copy of an audited draft report, submitted in a timely manner upon completion of the study prior to issuance of the final report. One revision will be permitted as part of the cost of the study, from which the Sponsor's reasonable revisions and suggestions will be incorporated into the final report, as appropriate. Additional changes or revisions may be made, at extra cost. It is expected that the Sponsor will review the draft report and provide comments to [illegible] within a two-month time frame following submission [illegible] submit the final report within one month following receipt of comments. Two copies of the final report (1 unbound, 1 PDF electronic copy on CD) will be provided. Requests for additional copies of the final report may result in additional charges.

XV. Animal Welfare Act Compliance:

This study will comply with all applicable sections of the Final Rules of the Animal Welfare Act regulations (9 CFR Parts 1, 2 and 3). The Sponsor should make particular note of the following:

- The Sponsor Representative's signature on this protocol documents for the Study Director the Sponsor's assurance that the study described in this protocol does not unnecessarily duplicate previous experiments.

- Whenever possible, procedures used in this study have been designed to avoid or minimize discomfort, distress or pain to animals. All methods are described in this study protocol or in written laboratory standard operating procedures.

- Animals that experience severe or chronic pain or distress that cannot be relieved will be painlessly euthanized as deemed appropriate by the veterinary staff and Study Director. The Sponsor will be advised by the Study Director of all circumstances which could lead to this action in as timely a manner as possible.

- Methods of euthanasia used during this study are in conformance with the above-referenced regulation.

XVI. Protocol Modification:

Modification of the protocol may be accomplished during the course of this investigation. However, no changes will be made in the study design without the written permission of the Sponsor. In the event that the Sponsor requests or approves a change in the protocol, such changes will be made by appropriate documentation in the form of protocol amendment. All alterations of the protocol and reasons for the modification(s) will be signed by the Study Director and the Sponsor Representative.

XVII. References:

1. Adams, J., Buelke-Sam, J., Kimmel, C.A., Nelson, C.J., Reiter, L.W., Sobotka, T.J., Tilson, H.A. and Nelson, B.K. (1985) Collaborative behavioral teratology study: Protocol design and testing procedure. Neurobehav. Toxicol. Teratol. 7: 579-586.

2. Snedecor, G.W. and Cochran, W.G. (1980) One Way Classifications; Analysis of variance. In: Statistical Methods, Seventh Edition. The Iowa State University Press, Ames, IA. pp. 215-237.

3. Dunnett, C.W. (1964) New tables for multiple comparisons with a control. Biometrics, 20:482-491.

XVIII. Protocol Approval:

Sponsor approval received via **telephone** on **April 7, 2003**.