

**Spontaneous Neoplastic Lesions
in the Crl:CD-1(ICR) Mouse
in Control Groups from
18 Month to 2 year Studies**

March, 2005

Information Prepared by

Mary L.A. Giknis Ph.D

Charles B. Clifford D.V.M, Ph.D



TABLE OF CONTENTS

INTRODUCTION.....	1
PURPOSE	1
COMMON STUDY PARAMETERS.....	1
DATA SETS PRESENTED.....	1
SUMMARY TABLE CALCULATIONS	2
Number of Studies (# Studies).....	2
Total Number of Organs (Total # Organs)	2
Total Number of Lesions (# Lesions)	2
Percent of Total.....	2
Number of Studies Using This Diagnosis.....	2
Minimum and Maximum Percent Found (Minimum and Maximum % Found).....	2
ADDITIONAL INFORMATION	3
SYNONYMS.....	3
ABBREVIATIONS.....	3
ACKNOWLEDGMENTS	3
REQUEST FOR DATA	3
REFERENCES.....	3
Table 1: Summary of Individual Study Information and Survival/Males	4
Table 2: Summary of Individual Study Information and Survival/Females.....	5
Graph 1: Male Survival — 78-104 Weeks.....	6
Graph 2: Female Survival — 78-104 Weeks.....	7
Table 3: Neoplasms/Males — 78-104 Weeks	8
Table 4: Neoplasms/Females — 78-104 Weeks.....	11
Table 5: Incidence of Neoplasms by Study for Selected Organs/Males	16
Table 6: Incidence of Neoplasms by Study for Selected Organs/Females	18

INTRODUCTION

The data presented in these tables was gathered from 59 toxicology studies of at least 78 weeks duration. All studies were performed in the United States or Europe by contract laboratories or industrial toxicology facilities.

PURPOSE

The purpose of this compilation is to offer the study director, reviewing toxicologist and/or study pathologist some reported incidences of neoplasms in Crl:CD1(ICR) mice, maintained as control animals, in studies of 78-104 weeks duration. Diagnoses in this compilation are intentionally grouped in a manner to provide the user with a range of reported incidences of similar types of lesions. This compilation is not intended in any way to propose a system of standardized nomenclature nor does it separately include each and every variant of the lesion.

COMMON STUDY PARAMETERS

The 59 studies included in this publication were initiated between 1987 and 2000 in 11 different laboratories. All studies used male and/or female Crl:CD1(ICR) mice from four different Charles River Laboratories production sites: Raleigh, North Carolina; Stone Ridge, New York; Kingston, New York and Portage Michigan.

The mice in these studies were from control groups of dietary or gavage studies and were approximately 4-7 weeks of age at study initiation. Some groups were untreated while others received the study vehicle; all served as control groups.

The mice included in this publication were generally singly housed in hanging wire mesh cages, fed a diet of Purina 5002 Certified Rodent Chow and had free access to water. The animal rooms were generally maintained at average temperatures of 72 +/- 5 degrees Fahrenheit with an average relative humidity of 30-70%. A 12hr/12hr light/dark cycle was employed in all studies. Since these studies were conducted in different facilities over a period of several years, there was some variation in environmental conditions. The overall environmental conditions were not considered by those performing the studies to have had any effect on the quality or integrity of the studies. Information on the health monitoring for adventitious infections, other than that associated with pathological examination conducted in accordance with scheduled or moribund sacrifices, was not available.

DATA SETS PRESENTED

Survival data are presented by study as the actual number surviving to terminal sacrifice and as a percent survival at terminal sacrifice (Tables 1 and 2). The survival data are also presented in graphic form (Graphs 1 and 2). Terminal sacrifices in the studies reported were conducted between weeks 78 and 104 of study. Actual study duration is included in Tables 1 and 2 and footnoted in Graphs 1 and 2. Survival data were not available for all studies at the time of publication. Only those studies for which data were available are represented on the graphs.

The overall incidences of all neoplastic lesions observed in any organ are reported and summarized by sex in Tables 3 and 4. These data also include neoplastic lesions from mice that died or were found moribund and killed prior to terminal sacrifice. Due to the apparent diversity in terminology and the variability among studies in the incidence of particular lesions, the individual study incidences of lesions in selected organs/systems are also presented (Tables 5 and 6). These organs/systems include liver, lung and whole body/multiple organ.

SUMMARY TABLE CALCULATIONS

The following is a description of how each of the parameters in the tables was calculated.

Number of Studies (# Studies)

This is the number of studies in which a particular tissue/organ was examined. In this publication, the number of studies is usually 52 for males and 54 for females. It is important for the reader to realize that some of the studies reported in this document were performed in only males or females and occasionally a specific tissue/organ was not examined in a particular study. The study identification number for females does not necessarily correlate with the same study identification number in males.

Total Number of Organs (Total # Organs)

This number represents the sum of the total number of tissues or organs examined in all of the control groups from all studies combined. Widespread tumors which showed involvement of multiple organs were listed on the basis of the total number of animals examined. Occasionally a tumor would be noticed in a tissue not designated for histological examination by the study protocol. In these instances, the tumor incidence was based on the total number of animals examined as any such tumor or lesion would have been noticed on gross examination of the animal. Autolysis did not routinely exclude tissues from diagnosis. Tissue numbers were adjusted only if the individual study table indicated that some tissues were missing or inadequate for examination. Some laboratories presented data separately for different regions within an organ (i.e., duodenum, jejunum, and ileum) while most presented data by the organ (i.e., small intestine). When data were presented separately by organ region, it was grouped under the organ and calculations were based on the number of organs examined.

Total Number of lesions (# Lesions)

This represents the total number of occurrences of this lesion in a specific organ in all studies examined.

Percent of Total

These values represent the particular incidence of a particular lesion/diagnosis in the total number (all studies combined) of a particular organ examined. These values were calculated by dividing the total number of lesions by the total number of organs/animals examined and then multiplying by 100 to express the value as a percent. Values are expressed to the second decimal place. Some caution is indicated in using this number, since not all pathologists or institutions will include all diagnoses in their lexicon.

Number of Studies Using This Diagnosis

This is the number of studies in which a particular diagnosis was reported. This number may be useful in interpreting the overall incidence (percent of total) of a particular diagnosis, see above.

Minimum and Maximum Percent Found (Minimum and Maximum % Found)

The range reported is the lowest and highest percent incidence for each lesion from the studies where the diagnosis was made. Therefore, if a study did not include a particular diagnosis, it was excluded from these calculations. The Minimum and Maximum Percent Found values should be considered in conjunction with the Number of Studies Using the Diagnosis.

The individual study percentages, Minimum % Found and Maximum % Found, were calculated by dividing the number of times each diagnosis was made by the total number of organs examined in each study and then multiplying the resultant value by 100 to express it as a percent. Values are expressed to the second decimal place.

ADDITIONAL INFORMATION

If additional information is desired regarding the conduct of these studies or the incidence of a particular neoplasm, please contact Mary Giknis through Charles River Laboratories Technical Support Services (800.338.9680). We will gladly provide assistance if we are able.

SYNONYMS

Synonymous terms or diagnoses were frequently encountered in different studies and were combined under a single, often broad diagnosis, which was considered to be the primary diagnosis. Although some effort was made to use currently acceptable terms, it is beyond the scope of this publication to propose a system of preferred diagnoses. The synonyms that were included in the various diagnoses are presented in the synonym list that follows. Where possible, terminology is consistent with the classification system proposed by the Society of Toxicologic Pathologists.

Gallbladder: Adenoma = Papilloma

Skin: Papilloma = Squamous Cell Papilloma
Nerve Sheath Tumor = Schwannoma = Neurofibroma

Testis: Sertoli Cell Tumor, Benign = Sertoliform Adenoma

Epididymis: Fibrosarcoma = Stromal Sarcoma

Uterus: Endometrium, Adenocarcinoma = Endometrial Carcinoma
Endometrial Stromal Sarcoma = Endometrial Sarcoma

Whole Body/Multiple Organ:

Histiocytic Sarcoma = Lymphoma, Histiocytic = Fibrous Histiocytoma
Lymphoma, Lymphocytic = Leukemia, Lymphocytic
Lymphoma, Malignant = Lymphosarcoma
Mast Cell Tumor = Mastocytomacytoma

ABBREVIATIONS

NR = Not Recorded or not available at the time of publication.

ACKNOWLEDGEMENTS

Our special thanks to Joe Frank, Julie Delaney and Ajit Thakur and all of the contributing laboratories without whose help this publication would not have been possible.

REQUEST FOR DATA

The purpose of these publications is to assist you, our clients, in evaluating your data. Our aim is to provide you with the data that you need to do your job well. We welcome any suggestions that you may have to improve this document as well as suggested topics for future documents. However, please realize that the publication is only as good as the data. To this end we invite you to participate in and support this worthwhile project by sending us your control data. If you or someone at your laboratory is willing to participate, please contact Mary Giknis through Charles River Laboratories, 251 Ballardvale Street, Wilmington, MA 01887.

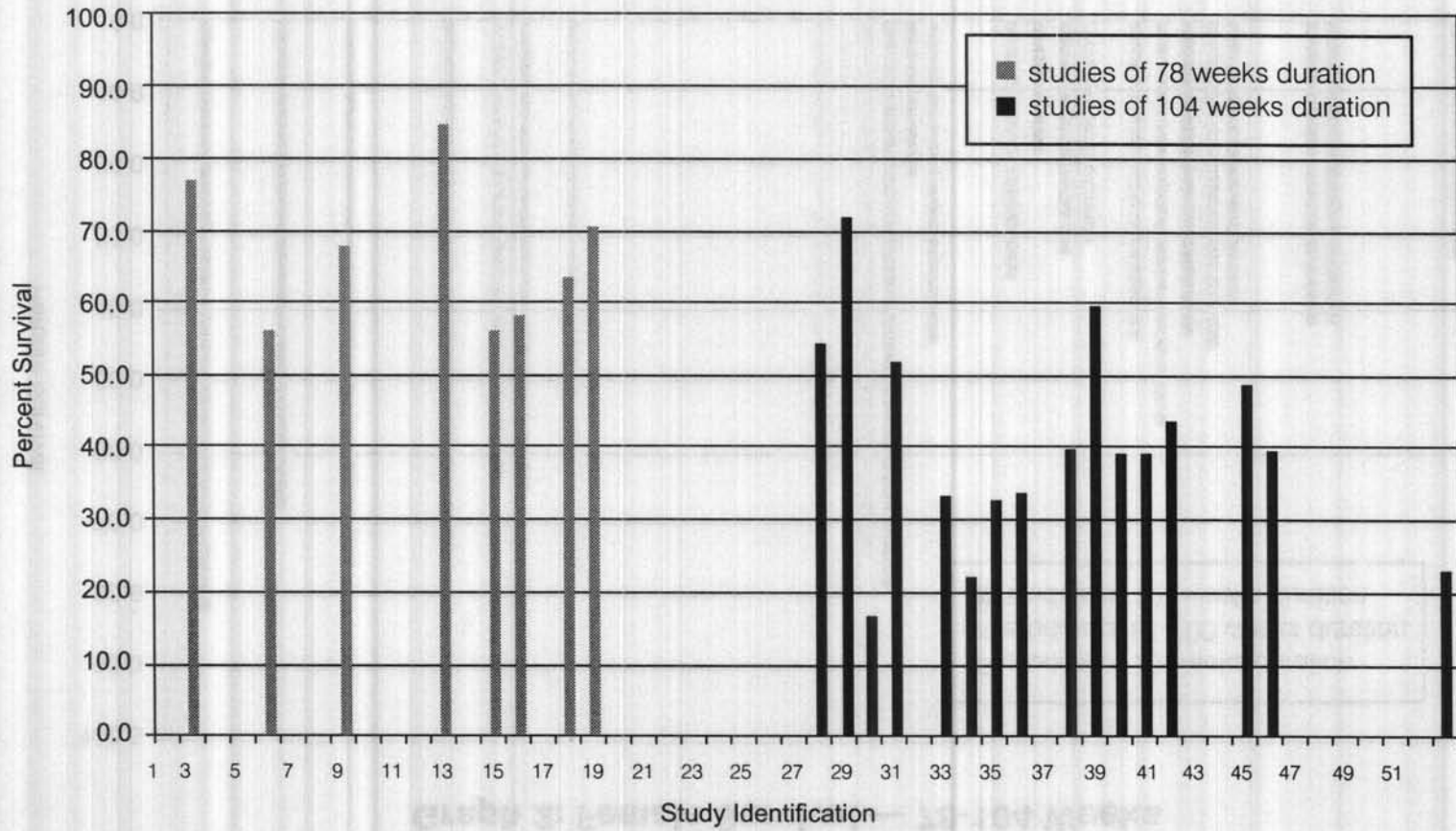
REFERENCES

1. Maronpot, R.R. (ed.). Pathology of the Mouse. 1999, Cache River Press, Vienna, IL.
2. Mikaelian, I., et al., Diversity of spontaneous neoplasms in commonly used inbred strains and stocks of laboratory mice, in The Laboratory Mouse. Hedrich, H. (ed.), 2004, Elsevier Scientific Press, Amsterdam.
3. Mohr, U. (ed.), Pathobiology of the Aging Mouse. Vols. 1 and 2. 1996, ILSI Press, Washington, D.C.

Table 2: Summary of Individual Study Information and Survival/Females

Study Identification	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Study Initiation Date	1987	1988	1988	1988	1988	1988	1989	1989	1989	1990	1990	1990	1990	1991	1991	1991
Total Number on Study	52	49	50	48	49	60	50	60	50	48	50	49	70	49	59	60
Number Surviving to Termination	NR	40	NR	NR	33	NR	NR	45	NR	NR	NR	36	NR	31	38	NR
% Survival		81.6			67.3			75.0				73.5		63.3	64.4	
Study Duration in Weeks	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78
Study Identification	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
Study Initiation Date	1992	1992	1992	1993	1993	1993	1993	1994	1995	1996	1995	1995	1989	1992	1990	1991
Total Number on Study	50	50	50	50	50	59	50	50	70	116	60	75	50	50	60	70
Number Surviving to Termination	39	NR	NR	NR	NR	NR	NR	NR	NR	NR	36	47	37	39	13	31
% Survival	78.0										60.0	62.7	74.0	78.0	21.7	44.3
Study Duration in Weeks	78	78	78	78	78	78	78	78	78	91	94	94	97	100	104	104
Study Identification	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
Study Initiation Date	1991	1992	1993	1993	1993	1993	1993	1994	1994	1994	1995	1995	1995	1995	1996	1996
Total Number on Study	65	150	60	70	50	65	59	50	65	65	60	60	60	80	50	50
Number Surviving to Termination	NR	NR	21	13	16	20	NR	22	36	28	27	23	NR	NR	21	21
% Survival			35.0	18.6	32.0	30.8		44.0	55.4	43.1	45.0	38.3			42.0	42.0
Study Duration in Weeks	104	104	104	104	104	104	104	104	104	104	104	104	104	104	104	104
Study Identification	49	50	51	52	53	54										
Study Initiation Date	1996	1996	1998	1999	1999	2000										
Total Number on Study	60	70	60	65	60	55										
Number Surviving to Termination	NR	NR	NR	NR	NR	18										
% Survival						32.7										
Study Duration in Weeks	104	104	104	104	104	104										

Graph 1: Male Survival — 78-104 Weeks



Graph 2: Female Survival — 78-104 Weeks

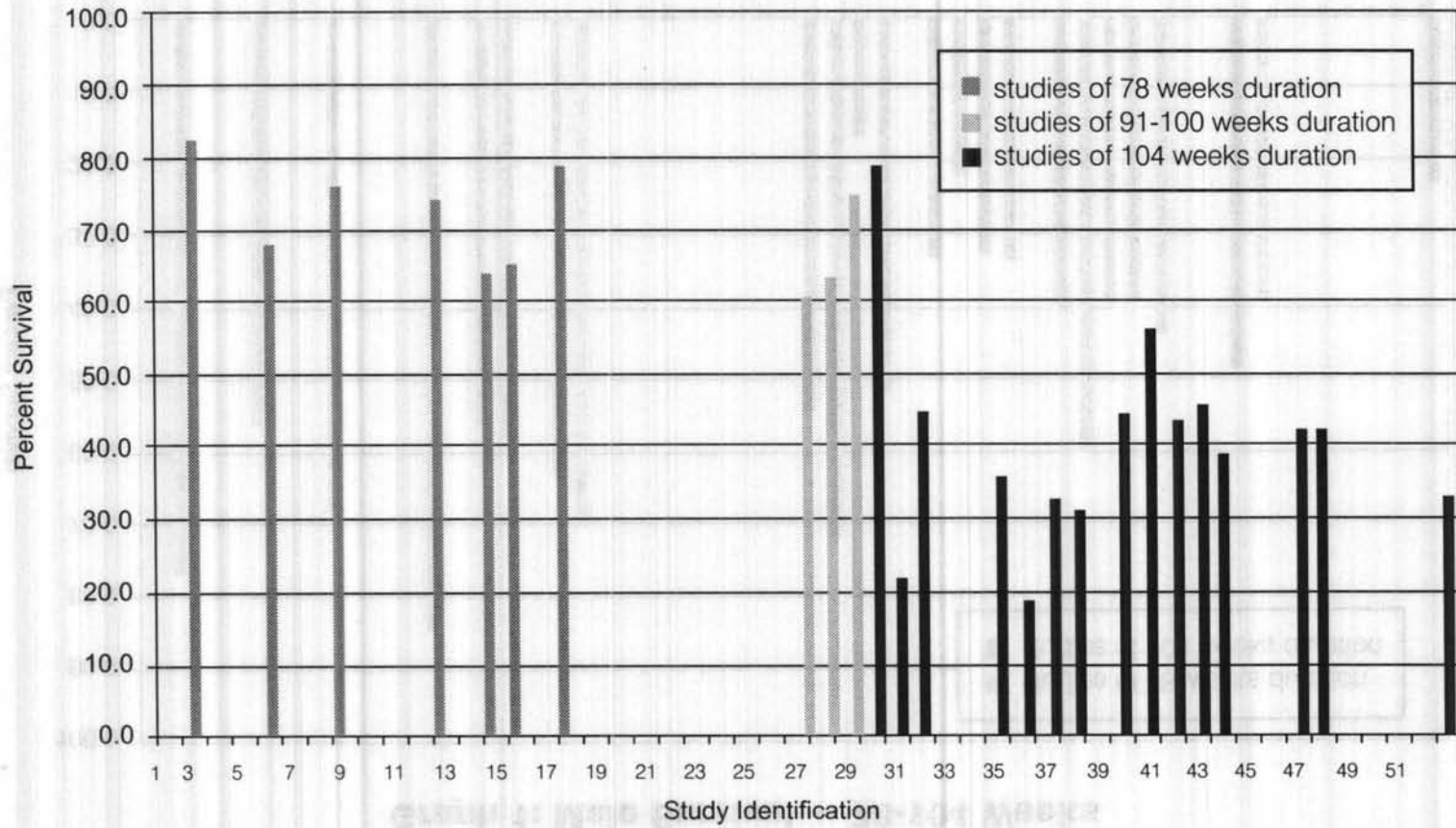


Table 3: Neoplasms/Males - 78-104 Weeks

LOCATION AND TUMOR	#STUDIES	TOTAL	PERCENT OF TOTAL	#STUDIES USING THIS DIAGNOSIS	MINIMUM % FOUND	MAXIMUM % FOUND
		#ORGANS #LESIONS				
STOMACH	52	2916				
Nonglandular Mucosa /Squamous Cell Papilloma		3	0.10	3	1.67	1.72
Adenocarcinoma		2	0.07	2	1.79	1.82
SMALL INTESTINE	52	2820				
Adenoma		1	0.04	1	1.72	1.72
Adenocarcinoma		5	0.18	4	1.67	2.90
LARGE INTESTINE / CECUM / ANUS	52	2851				
Adenocarcinoma		3	0.11	2	1.43	4.08
LIVER	52	2941				
Hepatocellular Adenoma		308	10.47	52	2.86	28.00
Hepatocellular Carcinoma		169	5.75	47	1.54	16.00
Hemangioma		9	0.31	7	1.54	4.00
Hemangiosarcoma		48	1.63	21	1.11	8.57
GALLBLADDER	52	2596				
Adenoma		11	0.42	8	1.52	5.00
PERITONEUM	52	2947				
Fibrosarcoma		2	0.07	2	1.67	1.69
Lipoma		2	0.07	2	1.43	2.00
NASAL CAVITY	52	2946				
Nasal Adenocarcinoma		1	0.03	1	2.00	2.00
Squamous Cell Carcinoma		1	0.03	1	1.69	1.69
LUNG	52	2945				
Adenoma, Alveolar / Bronchiolar		421	14.30	51	2.00	42.00
Adenocarcinoma, Alveolar / Bronchiolar		217	7.37	45	1.43	26.00
Mesothelioma, Malignant		3	0.10	1	5.00	5.00
KIDNEY	52	2939				
Adenoma / Tubular Adenoma		7	0.24	5	2.00	4.00
Adenocarcinoma / Tubular Adenocarcinoma		4	0.14	4	1.43	2.00
URINARY BLADDER	52	2905				
Leiomyoma		1	0.03	1	1.67	1.67
Leiomyoblastoma, Malignant		2	0.07	2	1.45	1.67
Leiomyosarcoma		5	0.17	3	2.00	4.00
TESTIS	52	2946				
Interstitial Cell Tumor, Benign		25	0.85	20	1.43	5.00
Interstitial Cell Tumor, Malignant		3	0.10	3	1.43	2.00
Hemangioma		2	0.07	2	1.67	2.00
Hemangiosarcoma		2	0.07	2	1.43	1.67
Sertoli Cell Tumor, Benign		3	0.10	3	1.43	1.69
Sertoli Cell Tumor, Malignant		1	0.03	1	1.43	1.43

LOCATION AND TUMOR	#STUDIES	TOTAL	PERCENT OF TOTAL	#STUDIES	MINIMUM % FOUND	MAXIMUM % FOUND
		#ORGANS #LESIONS		USING THIS DIAGNOSIS		
SEMINAL VESICLE	52	2912				
Adenocarcinoma		1	0.03	1	2.00	2.00
Leiomyosarcoma		1	0.03	1	1.67	1.67
PROSTATE	52	2933				
Adenoma		1	0.03	1	1.67	1.67
EPIDIDYMIS	52	2885				
Adenoma		1	0.03	1	2.00	2.00
Fibrosarcoma		3	0.10	3	1.43	1.67
Hemangiosarcoma		1	0.03	1	1.54	1.54
Leiomyoma		1	0.03	1	1.67	1.67
SKIN	52	2922				
Papilloma		5	0.17	5	1.47	2.00
Trichoepithelioma, Benign		1	0.03	1	2.63	2.63
Chondroma		1	0.03	1	1.67	1.67
Fibroma		3	0.10	3	1.67	2.08
Fibrosarcoma		6	0.21	4	1.54	3.33
Granular Cell Tumor, Benign		1	0.03	1	1.67	1.67
Hemangioma		1	0.03	1	1.54	1.54
Hemangiosarcoma		4	0.14	4	1.43	1.67
Leiomyosarcoma		1	0.03	1	1.43	1.43
Mast Cell Tumor		1	0.03	1	1.54	1.54
Nerve Sheath Tumor, Benign		2	0.06	2	1.67	2.00
Nerve Sheath Tumor, Malignant		3	0.10	3	1.43	2.00
Sarcoma		2	0.07	2	1.67	2.00
ADRENAL	52	2896				
Cortex, Adenoma		33	1.14	20	1.56	7.14
Cortex, Carcinoma		1	0.03	1	2.00	2.00
Paraganglioma		1	0.03	1	1.67	1.67
Pheochromocytoma, Benign		11	0.38	7	1.11	5.00
Subcapsular Cell, Adenoma		2	0.07	2	1.43	1.54
Spindle Cell Tumor, Benign		6	0.21	4	1.56	4.00
PANCREAS	52	2929				
Islet Cell, Adenoma		4	0.14	4	1.54	2.00
Hemangiosarcoma		2	0.07	2	1.67	1.69
PITUITARY	52	2874				
Adenoma		8	0.28	6	1.45	3.33
Carcinoma		2	0.07	2	1.67	2.04
Pars Intermedia, Adenoma		1	0.03	1	2.00	2.00
THYROID	52	2893				
C-Cell, Adenoma		1	0.03	1	2.00	2.00
Follicular Cell, Adenoma		14	0.48	14	1.11	2.00
Follicular Cell, Carcinoma		1	0.03	1	2.00	2.00

		TOTAL		#STUDIES		
		#ORGANS	PERCENT	USING THIS	MINIMUM	MAXIMUM
LOCATION AND TUMOR	#STUDIES	#LESIONS	OF TOTAL	DIAGNOSIS	% FOUND	% FOUND
BRAIN	52	2946				
Hemangioma		1	0.03	1	1.43	1.43
Oligodendroglioma		1	0.03	1	2.04	2.04
Meningioma		1	0.03	1	1.43	1.43
BONE	52	2940				
Osteoma, Benign		1	0.03	1	1.43	1.43
Osteosarcoma		1	0.03	1	1.54	1.54
Sarcoma		1	0.03	1	1.43	1.43
BONE MARROW	52	2936				
Lymphoma, Malignant		1	0.03	1	2.00	2.00
Hemangiosarcoma		3	0.10	2	1.54	3.33
SPLEEN	52	2913				
Hemangioma		10	0.34	9	1.43	4.00
Hemangiosarcoma		35	1.20	19	1.54	8.00
Lymphoma, Malignant		4	0.14	1	8.00	8.00
THYMUS	52	2304				
Lymphoma, Malignant		7	0.30	1	14.89	14.89
LYMPH NODES	52	2874				
Hemangioma		3	0.10	3	1.43	2.04
Hemangiosarcoma		3	0.10	3	1.67	2.00
Lymphoma, Malignant		3	0.10	1	6.00	6.00
WHOLE BODY/MULTIPLE ORGAN	52	2935				
Lymphoma, Malignant		132	4.50	42	1.45	21.67
Lymphoma, Lymphocytic		14	0.47	10	1.69	4.08
Leukemia, Granulocytic		8	0.27	8	1.43	2.04
Hemangiosarcoma		29	0.99	8	1.67	12.00
Histiocytic Sarcoma		46	1.57	24	1.11	8.00
Mast Cell Tumor, Malignant		4	0.14	4	1.43	2.00
EYE	52	2907				
Harderian Gland, Adenoma		152	5.23	39	1.67	18.64
Harderian Gland, Adenocarcinoma		12	0.41	8	1.43	8.33
EAR	52	2945				
Pinna, Hemangioma		1	0.03	1	1.67	1.67
Pinna, Papilloma		1	0.03	1	1.67	1.67

Table 4: Neoplasms/Females - 78-104 Weeks

LOCATION AND TUMOR	#STUDIES	TOTAL	PERCENT OF TOTAL	#STUDIES USING THIS DIAGNOSIS	MINIMUM % FOUND	MAXIMUM % FOUND
		#ORGANS #LESIONS				
ORAL CAVITY	54	3237				
Tongue, Papilloma		1	0.03	1	1.67	1.67
SALIVARY GLAND	54	3239				
Sarcoma		1	0.03	1	1.67	1.67
STOMACH	54	3141				
Polypoid Adenoma		3	0.10	3	1.47	2.00
Squamous Papilloma		4	0.13	4	0.79	2.04
Squamous Cell Carcinoma		3	0.10	3	1.43	2.00
Undifferentiated Carcinoma		2	0.06	2	1.56	2.00
SMALL INTESTINE	54	3030				
Adenoma		1	0.03	1	1.18	1.18
Adenocarcinoma		3	0.10	3	1.49	2.00
LARGE INTESTINE / CECUM / ANUS	54	3013				
Leiomyoma		1	0.03	1	1.72	1.72
Leiomyosarcoma		2	0.07	2	1.72	1.82
LIVER	54	3110				
Hepatocellular Adenoma		31	1.00	23	0.85	7.84
Hepatocellular Carcinoma		20	0.64	15	1.43	4.29
Undifferentiated Carcinoma		1	0.03	1	1.54	1.54
Hemangioma		8	0.26	8	1.54	2.00
Hemangiosarcoma		25	0.80	15	1.43	6.15
GALL BLADDER	54	2873				
Adenoma		6	0.21	6	1.43	3.03
PERITONEUM	54	3211				
Myxosarcoma		1	0.03	1	1.54	1.54
NASAL CAVITY	54	3151				
LUNG	54	3143				
Adenoma, Alveolar/Bronchiolar		299	9.51	49	1.67	26.67
Adenocarcinoma, Alveolar/Bronchiolar		145	4.61	41	0.77	18.37
Mesothelioma, Benign		1	0.03	1	1.67	1.67
Mesothelioma, Malignant		2	0.06	1	3.33	3.33
KIDNEY	54	3227				
Adenoma/Tubular Adenoma		1	0.03	1	2.00	2.00
Adenocarcinoma/Tubular Adenocarcinoma		1	0.03	1	2.00	2.00
Transitional Cell Carcinoma		1	0.03	1	2.00	2.00

LOCATION AND TUMOR	#STUDIES	TOTAL	PERCENT OF TOTAL	#STUDIES	MINIMUM % FOUND	MAXIMUM % FOUND
		#ORGANS #LESIONS		USING THIS DIAGNOSIS		
URINARY BLADDER	54	3088				
Transitional Cell Carcinoma		1	0.03	1	2.17	2.17
Leiomyoma		1	0.03	1	1.67	1.67
Leiomyosarcoma		4	0.13	4	1.75	2.44
Undifferentiated Sarcoma, Malignant		1	0.03	1	2.00	2.00
Ovary	54	3104				
Adenoma		7	0.23	3	1.67	4.69
Cystadenoma		23	0.74	14	1.54	7.27
Granulosa Cell Tumor, Benign		9	0.29	8	1.47	2.86
Granulosa Cell Tumor, Malignant		1	0.03	1	1.67	1.67
Tubular Adenoma		22	0.71	13	1.43	8.16
Luteal Cell Tumor, Benign		8	0.26	7	1.43	4.00
Luteal Cell Tumor, Malignant		1	0.03	1	1.11	1.11
Sertoliform Adenoma		2	0.06	2	2.00	2.04
Theca Cell Tumor, Benign		7	0.23	7	0.77	2.04
Theca Cell Tumor, Malignant		2	0.06	2	1.43	2.04
Hemangioma		8	0.26	7	1.11	2.90
Hemangiosarcoma		5	0.16	5	1.43	2.00
Leiomyoma		4	0.13	4	1.69	2.13
Oviduct, Fibroma		2	0.06	2	0.77	2.04
UTERUS	54	3182				
Endometrium, Adenoma		3	0.09	3	1.54	2.00
Endometrium, Adenocarcinoma		16	0.50	10	0.86	4.29
Endometrial Stromal Polyp		164	5.15	41	1.67	17.14
Endometrial Stromal Sarcoma		38	1.19	23	1.43	8.00
Fibroma		2	0.06	2	1.67	2.00
Fibrosarcoma		2	0.06	2	1.54	1.69
Granular Cell Tumor, Benign		1	0.03	1	2.04	2.04
Hemangioma		17	0.53	13	1.25	4.62
Hemangiosarcoma		15	0.47	13	0.77	4.08
Leiomyoma		47	1.48	24	1.43	7.50
Leiomyosarcoma		37	1.16	22	0.86	6.00
Nerve Sheath Tumor, Malignant		6	0.19	5	1.43	3.08
Neurofibrosarcoma		1	0.03	1	2.00	2.00
Osteosarcoma		8	0.25	4	1.54	8.00
Deciduoma		1	0.03	1	1.75	1.75
CERVIX	54	3078				
Squamous Cell Carcinoma		5	0.16	5	1.15	2.00
Endometrial Stromal Polyp		9	0.29	8	1.15	3.33
Endometrial Stromal Sarcoma		6	0.19	6	0.80	2.04
Fibrosarcoma		3	0.10	3	0.80	1.69
Granular Cell Tumor, Benign		1	0.03	1	1.75	1.75
Hemangiopericytoma		1	0.03	1	1.75	1.75
Leiomyoma		13	0.42	11	0.80	4.17
Leiomyosarcoma		21	0.68	14	1.45	5.08
Lymphangioma		1	0.03	1	2.04	2.04
Myxoma		1	0.03	1	2.00	2.00
Schwannoma		2	0.06	2	1.75	2.00

LOCATION AND TUMOR	#STUDIES	TOTAL	PERCENT OF TOTAL	#STUDIES USING THIS DIAGNOSIS	MINIMUM % FOUND	MAXIMUM % FOUND
		#ORGANS #LESIONS				
VAGINA	54	3114				
Basal Cell Adenoma		1	0.03	1	1.67	1.67
Papilloma		2	0.06	2	1.67	2.04
Polyp		4	0.13	3	0.78	2.86
Adenocarcinoma		1	0.03	1	2.04	2.04
Fibrosarcoma		1	0.03	1	1.43	1.43
Leiomyoma		7	0.22	6	1.47	3.33
Leiomyosarcoma		3	0.10	2	2.08	3.33
CLITORAL GLAND	54	3141				
SKIN	54	3232				
Basal Cell Tumor, Benign		1	0.03	1	1.67	1.67
Basal Cell Carcinoma		2	0.06	2	1.67	2.00
Squamous Cell Papilloma		5	0.15	5	1.43	2.00
Squamous Cell Carcinoma		8	0.25	7	1.43	3.33
Fibrosarcoma		21	0.65	12	1.54	6.67
Leiomyosarcoma		1	0.03	1	2.00	2.00
Liposarcoma		2	0.06	1	4.00	4.00
Myxosarcoma		1	0.03	1	1.43	1.43
Rhabdomyosarcoma		1	0.03	1	1.54	1.54
Sarcoma		3	0.09	3	1.43	1.67
Nerve Sheath Tumor, Malignant		15	0.46	4	1.67	14.00
MAMMARY GLAND	54	2962				
Adenoma		3	0.10	3	1.75	2.63
Adenocarcinoma		49	1.65	26	0.78	8.33
Adenoacanthoma		1	0.03	1	1.79	1.79
Adenoacanthoma, Malignant		5	0.17	3	2.08	3.85
Fibrosarcoma		3	0.10	2	2.04	2.35
ADRENAL	54	3167				
Cortex, Adenoma		8	0.25	6	0.78	3.08
Cortex, Adenocarcinoma		1	0.03	1	2.00	2.00
Pheochromocytoma, Benign		11	0.35	8	0.78	5.00
Pheochromocytoma, Malignant		1	0.03	1	1.96	1.96
Spindle Cell Tumor, Benign		7	0.22	5	1.54	4.00
PANCREAS	54	3144				
Acinar Cell Adenoma		2	0.06	2	1.54	2.00
Islet Cell, Adenoma		8	0.25	7	1.54	2.86
Islet Cell, Carcinoma		1	0.03	1	1.67	1.67
PITUITARY	54	3063				
Adenoma		64	2.09	32	0.78	14.29
Carcinoma		1	0.03	1	1.69	1.69
Pars Intermedia Adenoma		1	0.03	1	1.45	1.45

LOCATION AND TUMOR	#STUDIES	TOTAL		#STUDIES USING THIS DIAGNOSIS	MINIMUM % FOUND	MAXIMUM % FOUND
		#ORGANS #LESIONS	PERCENT OF TOTAL			
THYROID	54	3102				
C-Cell, Adenoma		2	0.06	1	3.33	3.33
C-Cell, Carcinoma		2	0.06	2	2.00	2.00
Follicular Cell, Adenoma		11	0.35	11	0.77	2.08
Follicular Cell, Carcinoma		3	0.10	3	1.43	1.67
PARATHYROID	54	2675				
Adenoma		4	0.15	4	1.64	3.23
BRAIN	54	3153				
Ependymoma		1	0.03	1	1.43	1.43
Meningeal Sarcoma		1	0.03	1	2.04	2.04
SKELETAL MUSCLE	54	3153				
Rhabdomyosarcoma		5	0.16	5	1.67	2.00
Carcinoma, Squamous Cell		1	0.03	1	0.78	0.78
Hemangiosarcoma		1	0.03	1	1.82	1.82
Sarcoma		1	0.03	1	2.00	2.00
BONE	54	3184				
Osteoma		10	0.31	8	1.43	3.08
Osteosarcoma		5	0.16	5	1.43	2.00
Fibrosarcoma		1	0.03	1	1.56	1.56
HEART	54	3159				
Hemangiosarcoma		2	0.06	2	1.54	2.00
BONE MARROW	54	3187				
Fibrosarcoma		1	0.03	1	1.54	1.54
Plasmacytoma		1	0.03	1	2.04	2.04
Liposarcoma		1	0.03	1	1.67	1.67
Hemangiosarcoma		5	0.16	4	1.43	3.08
SPLEEN	54	3142				
Hemangioma		3	0.10	3	1.43	2.00
Hemangiosarcoma		18	0.57	15	1.43	4.62
Leiomyosarcoma		1	0.03	1	2.00	2.00
THYMUS	54	2774				
Thymoma, Malignant		2	0.07	2	1.49	2.00
Lymphoma, Thymic		1	0.04	1	1.89	1.89
LYMPH NODES	54	3112				
Hemangioma		5	0.16	4	1.43	4.17

LOCATION AND TUMOR	#STUDIES	TOTAL	PERCENT OF TOTAL	#STUDIES USING THIS DIAGNOSIS	MINIMUM % FOUND	MAXIMUM % FOUND
		#ORGANS #LESIONS				
WHOLE BODY/MULTIPLE ORGAN	54	3192				
Lymphoma, Malignant		317	9.93	45	1.67	50.00
Lymphoma, Lymphocytic		44	1.38	7	1.54	27.45
Histiocytic Sarcoma		157	4.91	42	1.67	18.33
Leukemia, Granulocytic		7	0.22	5	0.77	4.08
Mast Cell Tumor, Malignant		3	0.09	3	1.54	2.00
Hemangioma		4	0.13	3	1.43	2.67
Hemangiosarcoma		25	0.78	9	1.67	12.00
EYE	54	3103				
Harderian Gland, Adenoma		75	2.42	35	1.35	8.33
Harderian Gland, Adenocarcinoma		9	0.29	9	1.43	2.38
EAR	54	3241				
Squamous Cell Carcinoma		1	0.03	1	2.00	2.00

Table 6: Incidence of Neoplasms by Study for Selected Organs / Females (cont'd)

Study Identification	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54
Study Duration (wks)	94	97	100	104	104	104	104	104	104	104	104	104	104	104	104	104	104	104	104	104	104	104	104	104	104	104	104
LIVER	75	50	50	60	70	58	117	59	70	50	65	51	50	65	65	60	41	59	70	50	50	60	70	60	65	60	55
Hepatocellular Adenoma	1	1				1	1		1			4	1	1	1	1	3	2		2	1	1	2			1	
Hepatocellular Carcinoma				2	1	2		1	3						1								1			1	
Undifferentiated Carcinoma										1																	
Hemangioma		1		1						1						1					1				1		1
Hemangiosarcoma				2	1	1	2	1	3													3		1	4		
LUNG	75	49	50	60	70	60	130	60	70	50	65	51	50	65	65	60	46	60	70	50	50	60	70	60	65	60	55
Adenoma, Alveolar/Bronchiolar	9	6	7			2	9			5	4	2	8	8	10	16	9	7	7	9	12	11	10	10	16	6	10
Adenocarcinoma, Alveolar/Bronchiolar		9	3			5	1			4	6		3	3	2	5	3	3	2	1	3	5	12	4	5	4	2
Mesothelioma, Benign															1												
Mesothelioma, Malignant																										2	
WHOLE BODY/MULTIPLE ORGAN	75	50	50	60	70	60	130	60	70	50	65	51	50	65	65	60	60	60	75	50	50	60	70	60	65	60	55
Lymphoma, Malignant	6	2	3	12	35	10	11	17	13	7	3		5	8	10	5	8	6		16	6			12	10	14	7
Lymphoma, Lymphocytic			6									14		1								8					
Histiocytic Sarcoma	3		3	5	5	1	9	11	2	3	8	2	4	5	7	4	3			3	6	10	7	4	7	5	2
Leukemia, Granulocytic						1	1							1													
Mast Cell Tumor, Malignant													1									1			1		
Hemangioma	2																										
Hemangiosarcoma										4	2		1			2	4			3	6						