

Spontaneous Neoplastic Lesions in the B6C3F₁ / Cr1BR Mouse

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INTRODUCTION -The data in these tables were gathered from chronic toxicology studies designed for product registration. All studies were performed in the United States and the United Kingdom at contract toxicology laboratories or pharmaceutical facilities.

I. COMMON STUDY PARAMETERS

Data from 20 groups of control animals are presented in Tables 1 through 20. All studies had the following conditions in common:

- They were 24 months in duration.
- The diet was Purina 5001 Rodent Lab Chow or Purina 5002 Certified Rodent Lab Chow.
- Mice were housed in suspended wire-mesh cages
- The in-life completion dates of the studies ranged from 1979 to 1986.
- B6C3F₁/Cr1BR mice were supplied from Charles River production facilities at Wilmington, MA; Portage, MI; Kingston, NY; or from facilities in the United Kingdom.

The encoded study identification (Study ID), the number of mice housed per cage, and the date of terminal sacrifice of the mice in each study group are as follows:

Study ID	#/Cage	Study Dates
A	1	10/80 - 10/82
B	1	10/80 - 10/82
C	1	7/78 - 7/80
D	1	6/82 - 7/84
E	1	6/82 - 7/84
F	3	2/80- 2/82
G	3	2/80 - 3/82
H	3	3/80 - 3/82
I	3	4/83 - 4/85
J	3	4/83- 5/85
K	3	12/83 - 12/85
L	1	1/84 - 1/86
M	1	5/82 - 5/84
N	1	3/83 - 4/85
O	1	5/79 - 6/81
P	1	10/78 - 10/80
Q	1	3/82 - 3/84
R	1	2/82 - 3/84
S	1	4/77 - 4/79
T	1	11/82 - 11/84

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II. ENVIRONMENTAL CONDITIONS

Environmental conditions for studies are rarely identical even when two studies are conducted in the same facility. Since these studies were conducted in different laboratories, some variation is inherent in the environmental conditions. The range of the mean room temperatures was 68 degrees to 72 degrees F. The range of the mean relative humidity was 45 to 55 percent. Relative humidity control was not precise in all facilities allowing the relative humidity to drop as low as 30 percent in winter months and to rise as high as 75 percent in the summer.

The photoperiod was maintained at a 12-hour light/dark cycle without twilight. Other environmental conditions were either not stated or were inconsistent between facilities. Information on health assessment monitoring other than that associated with pathologic examination conducted in accordance with scheduled or moribund sacrifices was not available.

Overall, environmental conditions were not considered by those performing and interpreting the studies to have affected the outcome of the studies or the distribution of lesions.

III. TABLES 1 AND 10

Number of Lesions (# Lesions)

Entries in this column are the total number of occurrences of this lesion in the tissue/organ or animal (i.e., lymphoreticular system) examined. These values were obtained by summing the number of occurrences in all of the studies used.

Percent

This column represents the mean percent of lesions found in the total population of tissue/organs or animals (i.e., lymphoreticular system) examined. These values were calculated by dividing the total number of lesions by the total number of tissues/organs or animals (i.e., lymphoreticular system) examined and then expressing the result as a percent (i.e., multiplying by 100). The values are expressed to the first decimal place since many values are below 0.5 percent and would be otherwise rounded off to zero.

Range

The range is the highest and lowest percent reported for a given lesion in the individual study groups. For example, in the case of the thyroid gland of male mice, a total of ten follicular cell adenomas was found as primary tumors in 1230 tissues examined, giving a mean of 0.8 percent for the population. In the 20 control groups represented, there was at least

Tables 1 and 10 provide a summary of neoplastic lesions in male and female B6C3F₁/Cr1BR mice. Data in these tables are expressed as follows:

Numbers Examined (# Examined)

This column was obtained by combining the total numbers of each tissue/organ examined in the control groups of 20 studies. Tumors of the lymphoreticular system are listed on the basis of the number of *animals* examined since these tumors are frequently found in multiple organs. Data from only 11 studies were included in the lymphoreticular tumor data since the data from the remaining nine studies were not available in a fashion that allowed its incorporation into this data base.

Autolysis of tissue did not routinely exclude samples from inclusion in the data base since some lesions could be diagnosed despite some autolysis. Tissue numbers were adjusted only if the individual study summary indicated that some were missing or that the tissues were inadequate for evaluation.

one group with no follicular cell adenomas (the low value in the RANGE) and at least one group with as many as 3.6 percent (the high value in the RANGE).

The individual study percentages comprising the range were calculated by dividing the total number of lesions by the total number of tissues/organs or animals (i.e., lymphoreticular system) in each study. Some tissues can be difficult to find in adult animals (e.g., thymus and male mammary gland) unless an obvious lesion exists. It must be remembered that with these tissues the individual group mean percentage may be skewed since the tissue may not have been examined in all animals studied and therefore only those animals with lesions in these tissues may have been recorded.

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Expanded Tables for Selected Tissues/Organs (Tables 2-9 and 11-20)

In compiling these tables it became clear that some lesions were diagnosed differently by different pathologists. Some of the lesions included in the tables may not be considered by all pathologists to represent neoplastic changes. For example, benign proliferative lesions in the liver of male B6C3F₁/CrI BR mice included nodular hyperplasia, hepatocellular adenoma, and type A hepatocellular nodules. It was not the goal of the present study, however, to define and categorize lesions whose classification could be argued as being neoplastic, non-neoplastic or preneoplastic.

Due to this lack of uniform classification of lesions, it was decided to present a series of tables separating specific diagnoses by study group. This would allow the readers to interpret the data according to their needs. Organ specific lesions summarized in this manner include proliferative lesions of the lymphoreticular system, lung, small intestines, liver, uterus, ovary, pituitary gland, thyroid gland, adrenal gland, and Harderian gland.

IV. SYNONYMOUS TERMS

In general, the diagnoses included in Tables 1 and 10 were the terms also used in the 20 studies in the data base. However, synonymous diagnoses were occasionally encountered in different sets of data. In such cases, the preferred diagnostic term listed in Tables 1 and 10 was substituted for the original term used in the studies. The following table lists these preferred diagnoses that were used in formulating Tables 1 and 10. This tabulated glossary of terms lists the preferred diagnosis under each tissue/organ followed by its synonyms. For example, in the uterus, endometrial stromal polyp was the preferred diagnosis used in Table 10, but the synonymous diagnoses reported in some of the control data included uterine polyp and stromal polyp. The number of tumors reported in Tables 1 and 10 includes all those listed as either the preferred diagnoses or synonymous diagnoses in all 20 studies. In cases where many diagnoses were used to describe a single lesion/tumor, the information was presented in expanded tables in which each diagnosis is separated by study group (see previous explanation).

The following is a listing of preferred and synonymous diagnoses:

GLOSSARY OF SYNONYMS

Skin:

FIBROSARCOMA = subcutaneous fibrosarcoma

Bone:

OSTEOSARCOMA = osteogenic sarcoma

Lung:

ALVEOLAR TYPE II ADENOMA = alveologenic adenoma

ALVEOLAR TYPE II CARCINOMA = alveologenic carcinoma

BRONCHIOLAR/ALVEOLAR ADENOMA = bronchoalveolar lining cell adenoma

BRONCHIOLAR/ALVEOLAR CARCINOMA = bronchiolar/alveolar adenocarcinoma; bronchiolar/alveolar lining cell carcinoma

Stomach:

SQUAMOUS PAPILLOMA, NONGLANDULAR MUCOSA = squamous papilloma; papilloma (nonglandular mucosa)

Liver:

HEPATOCELLULAR ADENOMA = type A hepatocellular nodule

HEPATOCELLULAR CARCINOMA = type B hepatocellular nodule; trabecular carcinoma

Pancreas:

ISLET CELL CARCINOMA = islet cell adenocarcinoma

Kidney:

TUBULAR CELL ADENOMA = renal cell adenoma

Testis:

INTERSTITIAL (LEYDIG) CELL TUMOR (Benign) = leydig cell tumor (benign); interstitial cell tumor (benign)

Uterus:

ENDOMETRIAL STROMAL POLYP = uterine polyp; stromal polyp

ENDOMETRIAL STROMAL SARCOMA = endometrial sarcoma; stromal sarcoma

LEIOMYOMA = leiomyoma, muscularis

LEIOMYOSARCOMA = leiomyosarcoma, muscularis

Pituitary Gland:

ADENOMA, ANTERIOR LOBE (Not Otherwise Specified) = tumor, pars anterior (benign)

ADENOMA, PARS DISTALIS = adenoma, anterior (pars distalis)

CARCINOMA, PARS DISTALIS = carcinoma, anterior (pars distalis)

ADENOCARCINOMA, PARS DISTALIS = adenocarcinoma, anterior (pars distalis)

Thyroid Gland:

FOLLICULAR CELL ADENOMA = follicular cell cystadenoma; papillary cystadenoma

FOLLICULAR CELL CARCINOMA = follicular cell adenocarcinoma

Adrenal Gland:

CORTICAL ADENOMA (Not Otherwise Specified) = subcapsular cell adenoma (not otherwise specified)

CORTICAL CARCINOMA (Not Otherwise Specified) = spindle cell tumor (malignant)

Harderian Gland:

CYSTADENOMA = cystadenoma, acini

KEY TO ABBREVIATIONS

The following abbreviations are used in conjunction with many of the tables:

*a = Number of animals examined.

*b = All malignant fibrous histiocytomas listed in the female data, except in the skin, were diagnosed in one study. Individual animal data were not provided; therefore, it could not be determined if all were in the same animal. The two malignant fibrous histiocytomas recorded in the skin were reported in different studies.

NOS = Not otherwise specified.

M = Malignant.

B = Benign.

TABLE 1 (SUMMARY)
B6C3F₁/CrIBR MICE - 24 MONTHS
SPONTANEOUS NEOPLASTIC LESIONS
MALE

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TOTAL NUMBER OF ANIMALS IN STUDIES: 1363

LOCATION & LESION	#TISSUES	# LESIONS	PERCENT	RANGE
	EXAM.			
HEMATOPOIETIC SYSTEM				
LYMPH NODES	1169			
hemangioma		1	0.1	0- 1.1
THYMUS	934			
fibrosarcoma		1	0.1	0- 3.0
SPLEEN	1270			
hemangioma		8	0.6	0- 3.3
hemangiosarcoma		12	0.9	0- 6.3
angioma		1	0.1	0- 3.3
BONE MARROW	1283			
hemangiosarcoma		1	0.1	0- 1.4
LYMPHORETICULAR TUMORS	832*a			
lymphosarcoma		50	6.0	0- 13.5
lymphosarcoma leukemia		11	1.3	0- 18.3
mailignant lymphoma, lymphocytic		5	0.6	0- 5.0
mailignant lymphoma, lymphoblastic		2	0.2	0- 2.9
mailignant lymphoma, mixed cell		5	0.6	0- 7.1
mailignant lymphoma, histiocytic		4	0.5	0- 2.9
histiocytic sarcoma		1	0.1	0- 1.4
reticulum cell sarcoma		3	0.4	0- 2.1
INTEGUMENTARY SYSTEM				
SKIN / SUBCUTIS	1292			
squamous cell carcinoma		1	0.1	0- 3.3
dermal polyp		1	0.1	0- 1.6
melanosarcoma		1	0.1	0- 1.2
fibrosarcoma		13	1.0	0- 14.8
neurofibrosarcoma		1	0.1	0- 3.3
fibrous histiocytoma (M)		1	0.1	0- 1.4
hemangioma		1	0.1	0- 1.7

hemangiosarcoma		1	0.1	0- 1.6
angiosarcoma		1	0.1	0- 3.3
MAMMARY GLAND	203			

MUSCULOSKELETAL SYSTEM

SKELETAL MUSCLE	1290			
fibrosarcoma		1	0.1	0- 1.8
BONE	1178			

TOTAL NUMBER OF ANIMALS IN STUDIES: 1363

**#TISSUES # LESIONS PERCENT RANGE
EXAM.**

LOCATION & LESION

RESPIRATORY SYSTEM

TRACHEA	1103			
LUNG	1300			
alveolar type-II adenoma		33	2.5	0- 25.4
bronchiolar/alveolar adenoma		108	8.3	0- 24.6
adenoma (NOS)		15	1.2	0- 13.8
alveolar type-II carcinoma		3	0.2	0- 2.1
bronchiolar / alveolar carcinoma		25	1.9	0- 5.8
adenocarcinoma (NOS)		3	0.2	0- 3.3

CIRCULATORY SYSTEM

HEART	1299			
hemangiosarcoma		1	0.1	0- 1.4
AORTA	835			

DIGESTIVE SYSTEM

SALIVARY GLAND	1274			
adenoma (NOS)		1	0.1	0- 1.4
ESOPHAGUS	1112			
squamous papilloma		1	0.1	0- 1.4
STOMACH	1255			
squamous papilloma, nonglandular mucosa		2	0.2	0- 1.4
squamous cell carcinoma (NOS)		3	0.2	0- 1.7
SMALL INTESTINE	1199			
adenoma (NOS)		1	0.1	0- 2.3
adenomatous polyp		1	0.1	0- 1.7
mucosal polyp		1	0.1	0- 1.4
adenocarcinoma (NOS)		5	0.4	0- 2.4
LARGE INTESTINE	1233			
hemangiosarcoma		1	0.1	0- 1.2

LIVER	1294			
nodular hyperplasia		6	0.5	0-20.0
hepatocellular adenoma		222	17.2	0-41.3
hepatocellular carcinoma		171	13.2	4.2-24.6
hepatocellular carcinosarcoma		1	0.1	0- 1.4
hemangioma		9	0.7	0- 3.3
hemangiosarcoma		6	0.5	0- 3.3
GALL BLADDER	855			
PANCREAS (EXOCRINE)	1257			
PANCREAS (ENDOCRINE)	1257			
islet cell adenoma		4	0.3	0- 2.9

TOTAL NUMBER OF ANIMALS IN STUDIES: 1363

**#TISSUES # LESIONS PERCENT RANGE
EXAM.**

LOCATION & LESION

URINARY SYSTEM

KIDNEY	1345			
tubular cell adenoma		2	0.1	0- 1.6
adenocarcinoma, cortex		1	0.1	0- 1.3
URINARY BLADDER	1290			
papillary adenoma		1	0.1	0- 1.1
hemangioma		1	0.1	0- 1.4

REPRODUCTIVE SYSTEM

TESTIS	1288			
interstitial (Leydig) cell tumor (B)		9	0.7	0- 3.3
hemangiosarcoma		1	0.1	0- 1.0
sarcoma (NOS)		2	0.2	0- 2.9
PROSTATE	1269			

ENDOCRINE SYSTEM

PITUITARY GLAND	1160			
adenoma, pars intermedia		3	0.3	0- 1.5
adenoma, pars distalis		1	0.1	0- 1.2
adenoma (NOS)		1	0.1	0- 1.3
THYROID GLAND	1230			
follicular cell adenoma		10	0.8	0- 3.6
PARATHYROID GLAND	645			
ADRENAL GLAND	1255			
cortical adenoma (NOS)		5	0.4	0- 2.9
adenoma (NOS)		1	0.1	0- 3.4

pheochromocytoma (B)	2	0.2	0- 3.9
pheochromocytoma (NOS)	1	0.1	0- 1.0

NERVOUS SYSTEM

BRAIN	1281		
granular cell tumor, meninges (B)	1	0.1	0- 1.3
NERVES	1020		

SPECIAL SENSES

EYE AND ADNEXA	1240		
cystadenoma, lacrimal gland (NOS)	6	0.5	0- 7.0
HARDERIAN GLAND	1221		
cystadenoma	23	1.9	0-11.3
papillary adenoma	5	0.4	0-10.0
adenoma, accessory gland	4	0.3	0-10.7
adenoma (NOS)	18	1.5	0- 7.1
NASAL TURBINATES	605		

**TABLE 2 (EXPANDED) B6C3F₁/CrIBR
MICE - 24 MONTHS
LYMPHORETICULAR TUMORS MALE**

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STUDY IDENTIFICATION	A	B	L	M	N	O	P	Q	R	S	T
# TISSUES EXAMINED	80	80	70	60	70	80	86	70	70	96	70
LESION											
lymphosarcoma			5		5	8	6	7	6	13	
%			7.1		7.1	10.0	7.0	10.0	8.6	13.5	
lymphocytic leukemia				11							
%				18.3							
malignant lymphoma, lymphocytic	4	1									
%	5.0	1.3									
malignant lymphoma, lymphoblastic											2
%											2.9
malignant lymphoma, mixed cell											5
%											7.1
malignant lymphoma, histiocytic	2										2
%	2.5										2.9
histiocytic sarcoma			1								
%			1.4								
reticulum cell sarcoma								1		2	
%								1.4		2.1	

TABLE 4 (EXPANDED) B6C3F₁/CrIBR

MICE - 24 MONTHS

SMALL INTESTINE MASSES MALE

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STUDY IDENTIFICATION	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
# TISSUES EXAMINED	76	77	66	60	60	30	28	43	24	24	43	70	60	70	80	85	70	70	96	67
LESION																				
adenoma (NOS)								1												
%								2.3												
adenomatous polyp					1															
%					1.7															
mucosal polyp																			1	
%																			1.4	
adenocarcinoma (NOS)				1							1		1			2				
%				1.7							2.3		1.7			2.4				

TABLE 5 (EXPANDED) B6C3F₁/CrIBRMICE - 24 MONTHS
LIVER MASS MALE[◀ PREVIOUS](#)[BACK TO INDEX](#)[NEXT ▶](#)

STUDY IDENTIFICATION	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
# TISSUES EXAMINED	80	77	98	60	57	30	30	59	30	30	61	70	60	70	80	96	70	70	96	70
LESION																				
nodular hyperplasia						6														
%						20.0														
hepatocellular adenoma	19	15	1	7	4		1	1	1	2	4	16	14	26	33	10	11	20		15
%	23.8	19.5	1.0	11.7	7.0		3.3	1.7	3.3	6.7	6.6	22.9	23.3	37.1	41.3	10.4	15.7	28.6		21.4
hepatocellular nodule, type A																				22
%																				22.9
hepatocellular nodule, type B																				4
%																				4.2
hepatocellular carcinoma	11	16	6			4	2	8	5	4	15	12	7	12	13	11	5	13		6
%	13.8	20.8	6.1			13.3	6.7	13.6	16.7	13.3	24.6	17.1	11.7	17.1	16.3	11.5	7.1	18.6		8.6
trabecular carcinoma				9	8															
%				15.0	14.0															
hepatocellular carcinosarcoma																				1
%																				1.4
hemangioma	1	2		2	1									1						1
%	1.3	2.6		3.3	1.8									1.4						1.4
hemangiosarcoma										1			1						1	1
%										3.3			1.7						1.4	1.4

**TABLE 9 (EXPANDED) B6C3F₁/CrIBR
MICE - 24 MONTHS
HARDERIAN GLAND TUMORS MALE**

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STUDY IDENTIFICATION	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
# TISSUES EXAMINED	76	79	66	60	60	30	28	55	28	28	60	70	50	60	80	86	70	70	95	70
LESION																				
cystadenoma												1		6	9				7	
%												1.4		10.0	11.3				10.0	
*cystadenoma, lacrimal gland (NOS)																6				
%																7.0				
papillary adenoma													5							
%													10.0							
adenoma, accessory gland									1	3										
%									3.6	10.7										
adenoma (NOS)		1		3	2	2													5	5
%		1.3		5.0	3.3	6.7													7.1	7.1

*=Not reported specifically with the Harderian gland data

TABLE 10 (SUMMARY)
B6C3F₁/CrIBR MICE - 24 MONTHS
SPONTANEOUS NEOPLASTIC LESIONS
FEMALE

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TOTAL NUMBER OF ANIMALS IN STUDIES: 1361

LOCATION & LESION	#TISSUES	# LESIONS	PERCENT	RANGE
	EXAM.			
HEMATOPOIETIC SYSTEM				
LYMPH NODES	1168			
hemangiosarcoma		1	0.1	0- 2.0
fibrous histiocyoma (M)		1*b	0.1	0- 3.3
THYMUS	1068			
SPLEEN	1269			
hemangioma		10	0.8	0- 4.3
hemangiosarcoma		5	0.4	0- 2.3
fibrous histiocyoma (M)		1*b	0.1	0- 3.3
BONE MARROW	1282			
LYMPHORETICULAR TUMORS	830*a			
lymphosarcoma		100	12.0	0- 28.1
lymphocytic leukemia		12	1.4	0- 20.8
mailignant lymphoma, lymphocytic		14	1.7	0- 7.5
mailignant lymphoma, lymphoblastic		1	0.1	0- 1.5
mailignant lymphoma, mixed cell		5	0.6	0- 7.4
mailignant lymphoma, histiocytic		12	1.4	0- 10.0
histiocytic sarcoma		12	1.4	0- 8.6
reticulum cell sarcoma		2	0.2	0- 2.9
INTEGUMENTARY SYSTEM				
SKIN / SUBCUTIS	1286			
squamous cell papilloma		1	0.1	0- 1.3
sebaceous galand adenoma		1	0.1	0- 1.7
adenexal adenoma (NOS)		1	0.1	0- 3.3
trichoepithelioma		1	0.1	0- 1.1
basal cell carcinoma		1	0.1	0- 1.3
fibroma		1	0.1	0- 1.7
fibrosarcoma		6	0.5	0- 3.3
neurofibrosarcoma		1	0.1	0- 1.3

fibrous histiocytoma (M)		2*b	0.2	0- 3.3
hemangioma		4	0.3	0- 2.9
hemangiosarcoma		3	0.2	0- 3.3
multiple myxosarcoma		1	0.1	0- 1.8
leiomyosarcoma		1	0.1	0- 1.3
sarcoma, undifferentiated		2	0.2	0- 1.4
MAMMARY GLAND	1171			
adenoma (NOS)		5	0.4	0- 7.1
fibroadenoma		4	0.3	0- 2.9
adenocarcinoma (NOS)		10	0.9	0- 3.4
carcinoma (NOS)		7	0.6	0- 5.5
MUSCULOSKELETAL SYSTEM				
SKELETAL MUSCLE	1296			
sarcoma, undifferentiated		1	0.1	0- 1.7
BONE	1175			
osteoma		3	0.3	0- 1.7
osteochondroma		1	0.1	0- 1.7
osteosarcoma		10	0.9	0- 6.7

TOTAL NUMBER OF ANIMALS IN STUDIES: 1361

**#TISSUES # LESIONS PERCENT RANGE
EXAM.**

LOCATION & LESION

RESPIRATORY SYSTEM

NASAL TURBINATES	608			
hemangioma, nasal bones		1	0.2	0- 1.7
TRACHEA	1114			
LUNG	1289			
alveolar type-II adenoma		15	1.2	0- 10.9
bronchiolar/alveolar adenoma		43	3.3	0- 10.0
adenoma (NOS)		9	0.7	0- 10.7
alveolar type-II carcinoma		1	0.1	0- 1.8
bronchiolar / alveolar carcinoma		8	0.6	0- 3.5
adenocarcinoma (NOS)		3	0.2	0- 2.9

CIRCULATORY SYSTEM

HEART	1296			
AORTA	851			

DIGESTIVE SYSTEM

SALIVARY GLAND	1270			
adenoma, mucinous		1	0.1	0- 1.7

ESOPHAGUS	1111			
squamous papilloma		1	0.1	0- 1.1
STOMACH	1273			
squamous papilloma, nonglandular mucosa		6	0.5	0- 4.3
squamous papilloma, inverted		1	0.1	0- 1.1
gastric adenoma		1	0.1	0- 1.1
gastic carcinoma		1	0.1	0- 1.1
squamous cell carcinoma, in situ		1	0.1	0- 1.3
squamous cell carcinoma, nonglandular mucosa		1	0.1	0- 1.3
fibrous histiocyto ma (M)		1*b	0.1	0- 3.3
mast cell tumor		1	0.1	0- 1.4
SMALL INTESTINE	1246			
adenoma (NOS)		2	0.2	0- 2.4
adenomatous polyp		1	0.1	0- 1.4
LARGE INTESTINE	1259			
fibros histiocyto ma (M)		1*b	0.1	0- 3.3
LIVER	1279			
nodular hyperplasia		1	0.1	0- 3.6
hepatocellular adenoma		91	7.1	0- 17.1
hepatocellular carcinoma		31	2.4	0- 6.3
hemangioma		4	0.3	0- 2.9
hemangiosarcoma		1	0.1	0- 1.4
Kupffer cell sarcoma		1	0.1	0- 0.9
GALL BLADDER	888			
PANCREAS (EXOCRINE)	1265			
fibros histiocyto ma (M)		1*b	0.1	0- 3.4
fibrosarcoma		1	0.1	0- 3.6
PANCREAS (ENDOCRINE)	1265			
islet cell adenoma		4	0.3	0- 2.5
islet cell carcinoma		4	0.3	0- 3.5

TOTAL NUMBER OF ANIMALS IN STUDIES: 1363

**#TISSUES # LESIONS PERCENT RANGE
EXAM.**

LOCATION & LESION

URINARY SYSTEM

KIDNEY 1326

URINARY BLADDER 1278

REPRODUCTIVE SYSTEM

UTERUS 1279

 endometrial stromal polyp 37 2.9 0- 10.0

papillary cystadenoma	1	0.1	0- 18.2
adenoma (NOS)	1	0.1	0- 1.3
carcinoma (NOS)	1	0.1	0- 1.3
adenocarcinoma (NOS)	8	0.6	0- 3.5
fibroma	2	0.2	0- 1.7
fibrosarcoma	2	0.2	0- 1.1
endometrial stromal sarcoma	8	0.6	0- 3.5
leiomyoma	5	0.4	0- 3.5
leiomyosarcoma	4	0.3	0- 3.4
hemangioma	11	0.9	0- 5.0
hemangiosarcoma	1	0.1	0- 1.4
angiosarcoma	1	0.1	0- 3.4
sarcoma, undifferentiated	1	0.1	0- 3.4

OVARY 1235

cystadenoma	4	0.3	0- 2.2
papillary cystadenoma	3	0.2	0- 3.6
papillary adenoma	2	0.2	0- 2.2
adenoma (NOS)	1	0.1	0- 1.3
tubular carcinoma	1	0.1	0- 1.4
adenocarcinoma (NOS)	1	0.1	0- 1.8
luteoma	3	0.2	0- 1.5
granulosa theca cell tumor (B)	7	0.6	0- 3.7
granulosa cell tumor (M)	2	0.2	0- 2.0
teratoma (B)	2	0.2	0- 3.7
hemangioma	10	0.8	0- 4.3
hemangiosarcoma	1	0.1	0- 1.7

ENDOCRINE SYSTEM

PITUITARY GLAND 1184

adenoma, pars intermedia	5	0.4	0- 4.2
adenoma, pars distalis	94	7.9	0- 29.0
adenoma, anterior lobe (NOS)	14	1.2	0- 11.7
adenoma (NOS)	63	5.3	0- 25.6
craniopharyngioma	1	0.1	0- 1.3
carcinoma, pars distalis	3	0.3	0- 2.8
adenocarcinoma, pars distalis	2	0.2	0- 1.4
adenocarcinoma (NOS)	1	0.1	0- 1.3

#TISSUES # LESIONS PERCENT RANGE EXAM.

LOCATION & LESION

THYROID GLAND 1239

follicular cell adenoma	30	2.4	0- 10.0
follicular cell carcinoma	5	0.4	0- 3.2

adenocarcinoma (NOS)		1	0.1	0- 1.3
PARATHYROID GLAND	656			
adenoma		1	0.2	0- 1.6
ADRENAL GLAND	1267			
cortical adenoma (NOS)		4	0.3	0- 2.7
cortical carcinoma (NOS)		3	0.2	0- 1.4
pheochromocytoma (B)		4	0.3	0- 2.6
pheochromocytoma (M)		1	0.1	0- 1.3
pheochromocytoma (NOS)		3	0.2	0- 2.7
NERVOUS SYSTEM				
BRAIN	1294			
NERVES	1034			
SPECIAL SENSES				
EYE AND ADNEXA	1271			
adenoma, accessory gland		2	0.2	0- 3.4
cystadenoma, lacrimal duct		4	0.3	0- 4.7
HARDERIAN GLAND	1251			
cystadenoma		20	1.6	0-8.6
papillary cystadenoma		1	0.1	0- 1.8
papillary adenoma		6	0.5	0-8.0
adenoma (NOS)		8	0.6	0- 4.3
adenocarcinoma (NOS)		1	0.1	0- 1.4

TABLE 11 (EXPANDED) B6C3F₁/CrIBR

**MICE - 24 MONTHS
LYMPHORETICULAR TUMORS
FEMALE**

[PREVIOUS](#)

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STUDY IDENTIFICATION	A	B	L	M	N	O	P	Q	R	S	T
# ANIMALS EXAMINED	80	80	70	60	70	80	86	70	70	96	68
LESION											
lymphosarcoma			4	1	10	17	19	13	9	27	
%			5.7	1.6	14.3	21.3	22.0	18.6	12.9	28.1	
lymphocytic leukemia				12							
%				20.0							
malignant lymphoma, lymphocytic	6	4									4
%	7.5	5.0									5.9
malignant lymphoma, lymphoblastic											1
%											1.5
malignant lymphoma, mixed cell											5
%											7.4
malignant lymphoma, histiocytic	8	4									
%	10.0	5.0									
histiocytic sarcoma			6	2	2					1	1
%			8.6	3.3	2.9					1.0	1.5
reticulum cell sarcoma								2			
%								2.9			

TABLE 12(EXPENDED) B6C3F₁/CrIBR

**MICE - 24 MONTHS
LUNG TUMORS FEMALE**

[◀ PREVIOUS](#)

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STUDY IDENTIFICATION	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
# TISSUES EXAMINED	80	79	115	55	56	29	30	56	29	30	58	70	60	70	80	86	70	70	96	70
LESION																				
alveolar type-II adenoma				6	5															4
%				10.9	8.9															4.2
bronchiolar / alveolar adenoma	2		1			1	1				3	4	3	5	3	8	7	3		2
%	2.5		0.9			3.5	3.3				5.2	5.7	5.0	7.1	3.8	9.3	10.0	4.3		2.9
bronchoalveolar lining cell adenoma			2																	
%			1.7																	
adenoma (NOS)								6	1	2										
%								10.7	3.4	6.7										
alveolar type-II carcinoma					1															
%					1.8															
bronchiolar / alveolar carcinoma	1	1				1														1
%	1.3	1.3				3.5														1.4
bronchiolar/alveolar adenocarcinoma													2		1		1			
%													3.3		1.3		1.4			
adenocarcinoma (NOS)														1					2	
%														1.4					2.9	

sarcoma, undifferentiated	1
%	3.4

TABLE 16 (EXPANDED) B6C3F₁/CrIBR

**MICE - 24 MONTHS
OVARIAN TUMORS FEMALE**

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STUDY IDENTIFICATION	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
# TISSUES EXAMINED	79	79	108	52	55	27	28	53	27	27	51	69	60	68	73	82	69	69	89	70
LESION																				
cystadenoma														1		1			2	
%														1.5		1.2			2.2	
papillary cystadenoma			1				1				1									
%			0.9				3.6				2.0									
papillary adenoma																			2	
%																			2.2	
adenoma (NOS)	1																			
%	1.3																			
tubular carcinoma												1								
%												1.4								
adenocarcinoma (NOS)					1															
%					1.8															
luteoma												1		1				1		
%												1.4		1.5				1.5		
granulosa theca cell tumor (B)				1					1	1	1				1	1	1			
%				1.9					3.7	2.0	1.4				1.4	1.2	1.4			
granulosa cell tumor (M)								1			1									
%								1.9			2.0									
teratoma (B)									1							1				
%									3.7							1.2				
hemangioma			1		1							3	1	1					2	1
%			0.9		1.8							4.3	1.7	1.5					2.2	1.4
hemangiosarcoma														1						
%														1.7						

TABLE 20 B6C3F₁/CrIBR MICE - 24

MONTHS
HARDERIAN GLAND TUMORS
FEMALE

 [PREVIOUS](#)

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STUDY IDENTIFICATION	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
# TISSUES EXAMINED	79	79	95	59	60	29	30	54	29	28	57	70	50	60	80	86	70	70	96	70
LESION																				
cystadenoma												6		4	3			6	1	
%												8.6		6.7	3.8			8.6	1.0	
papillary cystadenoma											1									
%											1.8									
papillary adenoma													4						2	
%													8.0						2.1	
*adenoma, accessory gland							1		1											
%							3.3		3.4											
adenoma (NOS)		1					1				1						2			3
%		1.3					3.3				1.8						2.9			4.3
adenocarcinoma (NOS)																			1	
%																			1.4	

*=Not reported specifically with the Harderian gland data