charles river

Summary
Historical studies have produced pre-clinical characteristics of adult C57BL/6NCrl mice. This phenotype data is representative of early and late aged adult subjects.

RESEARCH MODELS

Hematology Characteristics of Early and Late Adult C57BL/6NCrl Mice

Historical data from multiple studies of ageing pipeline on early (16 weeks old) and late (59 weeks old) adult control C57BL/6NCrl mice is summarized in the following reference tables. Each are provided in terms of phenotypic characteristics assessed by the International Mouse Phenotyping Consortium (IMPC) following standardized protocols. The goal was to determine typical phenotypic ranges for early and late adult control mice. This reference data was collected over time at The Centre for Phenogenomics (TCP), Toronto, ON Canada and is shown in descriptive summary tables of hematology parameters.

Table 1: Animal (C57BL/6/NCrl) study parameters.

Pipeline	Sex	Test dates (earliest/latest)	Test week	Sample size (n=554)
Early	Male	2017-11-20 / 2020-04-28	16	199
	Female	2017-11-20 / 2020-04-29	16	227
Late	Male	2017-11-27 / 2020-04-28	59	63
	Female	2018-01-10 / 2020-04-07	59	65

Table 2: Male animal (C57BL/6NCrl) study parameters.

	Early			Late		
	2.5%	Median	97.5%	2.5%	Median	97.5%
White Blood Cell Count (10^3/ul)	5.61	9.52	13.40	4.33	9.32	14.17
Red Blood Cell Count (10^6/ul)	9.59	10.53	11.33	8.99	9.99	10.99
Hemoglobin (g/dl)	13.40	15.00	16.00	12.32	13.80	15.08
Hematocrit (%)	44.00	49.00	53.80	440.95	45.30	52.52
Mean Cell Volume (fl)	43.79	46.60	49.20	42.03	44.70	50.93
Mean Corpuscula Hemoglobin (pg)	13.40	14.10	15.10	12.41	13.60	14.70
Mean Cell Hemoglobin Concentration (g/dl)	28.50	30.40	32.60	26.10	30.30	33.19
Platelet Count (10^3/ul)	748.45	915.00	1211.50	940.00	1261.00	1710.90
Mean Platelet Volume (fl)	4.10	4.40	4.60	4.30	4.60	4.90
Red Blood Cell Distribution Width(%)	17.10	18.20	20.50	17.75	18.80	21.34
Neutrophil Differential Count (%)	10.98	15.80	32.89	12.53	17.42	54.56
Lymphocyte Differential Count (%)	65.12	82.24	86.87	43.66	80.58	85.29
Monocyte Differential Count (%)	0.72	1.66	2.97	0.76	1.86	4.08
Eosinophil Differential Count (%)	0.00	0.05	0.95	0.00	0.08	0.81
Basophil Differential Count (%)	0.00	0.02	0.45	0.00	0.03	0.45
Neutrophil Cell Count (10^3/ul)	0.81	1.49	3.30	0.71	1.62	4.26
Lymphocyte Cell Count (10^3/ul)	4.24	7.73	11.03	1.95	6.97	10.64
Monocyte Cell Count (10^3/ul)	0.06	0.15	0.31	0.05	0.15	0.49
Eosinophil Cell Count (10^3/ul)	0.00	0.00	0.12	0.00	0.01	0.08
Basophil Cell Count (10^3/ul)	0.00	0.00	0.04	0.00	0.00	0.03

Table 3: Female animal (C57BL/6NCrl) study parameters.

	Early			Late		
	2.5%	Median	97.5%	2.5%	Median	97.5%
White Blood Cell Count (10^3/ul)	5.11	7.82	10.65	1.98	3.64	6.22
Red Blood Cell Count (10^6/ul)	9.54	10.36	11.03	8.54	9.73	10.72
Hemoglobin (g/dl)	13.87	14.90	15.94	11.62	13.90	15.14
Hematocrit (%)	44.80	48.80	53.23	38.38	44.50	50.68
Mean Cell Volume (fl)	45.23	47.00	49.33	42.36	45.70	49.12
Mean Corpuscular Hemoglobin (pg)	13.77	14.40	15.20	13.10	14.30	15.10
Mean Cell Hemoglobin Concentration (g/dl)	28.50	30.60	32.50	28.36	31.10	33.20
Platelet Count (10^3/ul)	639.55	809.00	1002.40	719.80	1005.00	1325.80
Mean Platelet Volume (fl)	4.10	4.40	4.63	4.40	4.60	5.34
Red Blood Cell Distribution Width(%)	17.20	18.10	19.00	17.40	18.10	19.14
Neutrophil Differential Count (%)	9.82	13.49	18.74	17.75	29.77	48.63
Lymphocyte Differential Count (%)	78.79	84.53	88.36	48.38	68.52	80.31
Monocyte Differential Count (%)	0.72	1.83	3.27	0.85	2.30	4.98
Eosinophil Differential Count (%)	0.00	0.05	0.65	0.00	0.10	0.69
Basophil Differential Count (%)	0.00	0.02	0.35	0.00	0.00	0.43
Neutrophil Cell Count (10^3/ul)	0.62	1.05	1.63	0.51	1.16	1.87
Lymphocyte Cell Count (10^3/ul)	4.38	6.57	9.07	1.24	2.38	4.70
Monocyte Cell Count (10^3/ul)	0.06	0.13	0.27	0.02	0.09	0.20
Eosinophil Cell Count (10^3/ul)	0.00	0.00	0.05	0.00	0.00	0.02
Basophil Cell Count (10^3/ul)	0.00	0.00	0.03	0.00	0.00	0.02