

### Summary

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



## RESEARCH MODELS

# Clinical Chemistry Characteristics of Early and Late Adult C57BL/6NCrI Mice

Historical data from multiple studies of ageing pipeline on early (16 weeks old) and late (59 weeks old) adult control C57BL/6NCrI 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 clinical chemistry parameters.

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

Pipeline	Sex	Test dates (earliest/latest)	Test week	Sample size (n=559)
Early	Male	2017-11-24 / 2020-05-22	16	201
	Female	2017-11-24 / 2020-05-20	16	232
Late	Male	2017-11-30 / 2020-05-22	59	66
	Female	2018-03-28 / 2020-04-13	59	60

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

	Early			Late		
	2.5%	Median	97.5%	2.5%	Median	97.5%
Sodium (mmol/L)	143.20	149.20	153.50	143.90	151.30	156.30
Potassium (mmol/L)	4.38	5.14	6.02	4.70	5.38	6.09
Chloride (mmol/L)	106.80	111.00	115.20	106.62	112.70	116.97
Urea (mg/dl)	16.12	23.20	32.50	17.10	21.90	28.30
Creatinine (mg/dl)	0.08	0.16	0.24	0.09	0.13	0.18
Total Protein (g/l)	46.70	55.30	62.90	51.23	60.35	70.40
Albumin (g/l)	24.20	30.30	34.90	25.86	31.00	37.44
Total Bilirubin (mg/dl)	0.08	0.12	0.23	0.08	0.12	0.25
Calcium (mg/dl)	8.83	10.19	11.05	8.10	10.28	11.15
Phosphorus (mg/dl)	4.39	5.88	8.42	4.26	5.76	7.37
Aspartate Aminotransferase (U/l)	35.70	54.20	111.20	38.95	51.20	109.95
Alanin Aminotransferase (U/l)	16.00	25.00	79.30	16.49	30.30	83.12
Alkaline Phosphatase (U/l)	30.70	45.20	70.40	21.10	41.15	60.14
Total Cholesterol (mg/dl)	80.70	122.60	163.20	92.39	131.35	199.30
Hdl Cholesterol (mg/dl)	46.80	70.00	92.60	48.75	76.20	98.42
Triglycerides (mg/dl)	54.90	110.10	178.50	41.08	89.10	170.91
Glucose (mg/dl)	173.00	261.40	375.50	178.55	231.60	295.45

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

	Early			Late		
	2.5%	Median	97.5%	2.5%	Median	97.5%
Sodium (mmol/L)	138.09	146.50	151.77	137.44	148.60	153.44
Potassium (mmol/L)	3.82	4.91	5.73	4.25	4.92	5.79
Chloride (mmol/L)	106.24	111.80	115.29	107.50	112.80	118.27
Urea (mg/dl)	16.16	23.30	32.14	17.04	23.05	34.02
Creatinine (mg/dl)	0.12	0.18	0.23	0.11	0.16	0.22
Total Protein (g/l)	48.18	56.20	61.55	52.98	59.30	76.09
Albumin (g/l)	28.28	33.60	36.34	27.83	31.70	37.00
Total Bilirubin (mg/dl)	0.09	0.13	0.21	0.09	0.12	0.26
Calcium (mg/dl)	9.04	10.24	11.23	8.45	9.94	10.64
Phosphorus (mg/dl)	4.48	5.69	7.58	3.97	5.23	6.64
Aspartate Aminotransferase (U/l)	36.09	50.70	103.43	44.88	62.55	149.87
Alanine Aminotransferase (U/l)	13.70	19.90	41.85	15.19	25.60	62.29
Alkaline Phosphatase (U/l)	48.83	72.85	102.64	34.95	62.05	118.81
Total Cholesterol (mg/dl)	64.76	102.95	124.88	63.65	100.40	163.86
Hdl Cholesterol (mg/dl)	31.94	53.05	64.05	34.80	52.90	68.81
Triglycerides (mg/dl)	45.21	86.30	155.03	41.01	76.85	169.56
Glucose (mg/dl)	171.05	252.90	373.79	195.38	238.20	295.00