

### Summary

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



## RESEARCH MODELS

# Body Composition Characteristics of Early and Late Adult C57BL/6NCrI Mice

Historical data from multiple studies of ageing pipeline on early (14 weeks old) and late (57 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 on body composition.

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

Pipeline	Sex	Test dates (earliest/latest)	Test week	Sample size (n=578)
Early	Male	2017-11-06 / 2020-05-07	14	207
	Female	2017-11-07 / 2020-04-30	14	233
Late	Male	2017-11-13 / 2020-05-04	57	67
	Female	2017-12-28 / 2020-06-08	57	71

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

	Early			Late		
	2.5%	Median	97.5%	2.5%	Median	97.5%
Body Weight (g)	24.56	28.60	32.38	31.43	42.19	51.17
Fat Mass (g)	5.96	10.98	15.88	10.78	22.10	29.80
Lean Mass (g)	12.65	15.60	19.57	15.12	18.37	21.17
Bone Mineral Density (g/cm <sup>2</sup> )	0.0507	0.0553	0.0736	0.052	0.0587	0.0697
Bone Mineral Content (g)	0.377	0.442	0.620	0.467	0.545	0.681
Body Length (cm)	9.10	9.50	10.00	9.60	10.30	10.80
BMC - Body Weight Ratio	0.0139	0.0154	0.0213	0.0105	0.013	0.0174
Lean - Body Weight Ratio	0.434	0.551	0.674	0.323	0.420	0.595
Fat - Body Weight Ratio	0.206	0.384	0.515	0.313	0.514	0.616
Bone Area (cm <sup>2</sup> )	7.14	8.02	8.86	8.23	9.21	10.70

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

	Early			Late		
	2.5%	Median	97.5%	2.5%	Median	97.5%
Body Weight (g)	20.14	22.77	26.07	24.52	36.35	49.53
Fat Mass (g)	4.60	8.27	11.84	9.74	18.20	27.70
Lean Mass (g)	11.25	12.75	16.71	11.61	13.80	20.62
Bone Mineral Density (g/cm <sup>2</sup> )	0.0493	0.0535	0.0693	0.0432	0.0574	0.0706
Bone Mineral Content (g)	0.355	0.417	0.580	0.425	0.524	0.845
Body Length (cm)	8.80	9.20	9.50	9.35	10.00	10.53
BMC - Body Weight Ratio	0.0164	0.0181	0.0243	0.0092	0.0166	0.0203
Lean - Body Weight Ratio	0.481	0.560	0.718	0.313	0.402	0.531
Fat - Body Weight Ratio	0.209	0.365	0.458	0.391	0.507	0.614
Bone Area (cm <sup>2</sup> )	6.85	7.69	8.62	8.01	9.50	12.64