Table V in S1 File. Tentative breed-specific reference intervals for the Labrador Retriever (n=327; 19 intact females, 98 neutered females, 91 intact males and 119 neutered males). The median (minimum, maximum) age was 6.08 (0.67, 14.00) years.

Analyte	SI Units	RI[a]	Lower reference limit 90% CI[b]	Upper reference limit 90% CI[b]
Total protein	g/L	53.1~67.8	52.6~53.7	67.0~69.1
Albumin	g/L	28.3~38.4	28.1~29.1	38.1~38.7
Globulin	g/L	21.3~34.5	21.1~21.4	33.3~38.2
Sodium	mmol/L	143.0~153.0[*]	142.0~143.6	153.0[*]~153.0[*]
Potassium	mmol/L	4.10~5.30	4.10~4.20	5.20~5.40
Chloride	mmol/L	108.0~116.0	106.8~108.5	116.0~117.0
Calcium	mmol/L	2.19~2.66	2.17~2.22	2.64~2.68
Phosphorus	mmol/L	0.88~1.87	0.81~0.92	1.82~1.95
Creatinine	µmol/L	71~122[#]	67~77	121[#]~122[#]
Cholesterol	mmol/L	3.6~8.1	3.5~3.8	7.8~8.5
Total bilirubin	µmol/L	0~2.4	0~0	2.3~2.4
ALT	U/L	22~76	19~24	74~82
CK	U/L	70~346	66~74	313~366
ALP	U/L	19[§]~212	19[§]~20[§]	170~239
Amylase	U/L	388~1171	364~412	1136~1217
Lipase	U/L	102~592	91~110	573~720

[a] RI: reference interval established by non-parametric method; [b] CI: confidence interval established by non-parametric method; [*] may be underestimated due to > 2% recorded sodium equal to the existing RVC DL upper reference limits 153 mmol/L; [#] may be underestimated due to > 2% recorded creatinine equal to the existing RVC DL upper reference limits 122 µmol/L; [§] may be overestimated due to > 2% recorded ALP equal to the existing RVC DL lower reference limits 19 U/L.

Table W in S1 File. Tentative breed-specific reference intervals for the Cavalier King Charles Spaniels (n=174; 20 intact females, 60 neutered females, 26 intact males and 68 neutered males). The median (minimum, maximum) age was 5.25 (0.75, 18.00) years.

Analyte	SI Units	RI[a]	Lower reference limit 90% CI[b]	Upper reference limit 90% CI[b]
Total protein	g/L	53.0~66.9	51.6~54.1	66.5~68.3
Albumin	g/L	29.8~38.6	28.1~30.2	38.4~39.0
Globulin	g/L	21.2~32.5	21.0~21.6	30.9~35.9
Sodium	mmol/L	143.8~152.7	142.0~144.0	152.2~153.0
Potassium	mmol/L	4.10~5.06	4.00~4.10	5.00~5.40
Chloride	mmol/L	105.2~116.0	105.0~106.0	114.1~118.0
Calcium	mmol/L	2.27~2.67	2.13~2.33	2.65~2.68
Phosphorus	mmol/L	1.0~1.9	0.84~1.04	1.85~1.98
Creatinine	μmol/L	57.4~108.6	56~61	105~117
Cholesterol	mmol/L	3.9~8.8	3.4~4.2	8.5~8.9
Total bilirubin	μmol/L	0~2.1	0~0	1.9~2.4
ALT	U/L	14~70	13~15	50~81
CK	U/L	73~359	63~78	326~392
ALP	U/L	19*~222	19*~20*	190~254
Amylase	U/L	356~1137	216~431	1091~1220
Lipase	U/L	142~707	124~166	576~924

[a] RI: reference interval established by non-parametric method; [b] CI: confidence interval established by non-parametric method; * may be overestimated due to > 2% recorded ALP equal to the existing RVC DL lower reference limits 19 U/L.

Table X in S1 File. Tentative breed-specific reference intervals for the German Shepherd Dog (n=160; 11 intact females, 58 neutered females, 35 intact males and 56 neutered males) . The median (minimum, maximum) age was 7.00 (0.75, 12.33) years.

Analyte	SI Units	RI[a]	Lower reference limit 90% CI[b]	Upper reference limit 90% CI[b]
Total protein	g/L	53.1~68.6	52.1~54.2	67.7~71.0
Albumin	g/L	28.6~38.1	28.2~29.1	37.3~38.7
Globulin	g/L	22.2~37.9	21.2~22.4	34.9~38.6
Sodium	mmol/L	143.3~152.3	142.0~144.0	152.0~153.0
Potassium	mmol/L	4.1~5.30	3.90~4.20	5.20~5.50
Chloride	mmol/L	107.0~117.3	105.6~108.0	117.0~118.0
Calcium	mmol/L	2.24~2.67	2.16~2.31	2.67~2.70
Phosphorus	mmol/L	0.81~1.86	0.80~0.88	1.76~1.95
Creatinine	µmol/L	75~122[§]	70~80	121[§]~122[§]
Cholesterol	mmol/L	3.6~8.0	3.3~3.7	7.7~8.6
Total bilirubin	µmol/L	0~2.2	0~0	2.1~2.4
ALT	U/L	19~81	17~22	79~85
CK	U/L	63~316	62~65	300~353
ALP	U/L	19[*]~136	19[*]~19[*]	119~271
Amylase	U/L	372~1090	204~458	1042~1146
Lipase	U/L	99~632	76~112	596~885

[a] RI: reference interval established by non-parametric method; [b] CI: confidence interval established by non-parametric method; [§] may be underestimated due to > 2% recorded creatinine equal to the existing RVC DL upper reference limits 122 µmol/L;[*] may be overestimated due to > 2% recorded ALP equal to the existing RVC DL lower reference limits 19 U/L.

Table Y in S1 File. Tentative breed-specific reference intervals for the Boxer (n=146; 16 intact females, 48 neutered females, 33 intact males and 49 neutered males). The median (minimum, maximum) age was 6.08 (0.08, 13.33) years.

Analyte	SI Units	RI[a]	Lower reference limit 90% CI[b]	Upper reference limit 90% CI[b]
Total protein	g/L	54.6~69.1	53.8~56.2	68.3~69.8
Albumin	g/L	28.9~38.0	28.6~29.9	37.8~39.0
Globulin	g/L	21.7~35.7	21.4~22.3	34.6~37.8
Sodium	mmol/L	142.7[*]~153.0[§]	142.0[*]~143.8[*]	152.2[§]~153.0[§]
Potassium	mmol/L	4.00~5.20	3.90~4.10	5.10~5.30
Chloride	mmol/L	107.3~115.9	106.0~108.0	115.0~117.1
Calcium	mmol/L	2.25~2.64	2.18~2.28	2.61~2.70
Phosphorus	mmol/L	1.02~1.93	0.92~1.11	1.84~1.96
Creatinine	µmol/L	81~122[$]	78~85	121[$]~122[$]
Cholesterol	mmol/L	4.0~8.7	3.8~4.4	8.6~8.9
Total bilirubin	µmol/L	0~2.3	0~0	2.1~2.4
ALT	U/L	23~77	19~27	74~87
CK	U/L	71~370	69~78	329~390
ALP	U/L	20[#]~172	19[#]~22[#]	156~277
Amylase	U/L	502~1208	338~569	1166~1244
Lipase	U/L	292~1026	124~326	971~1104

[a] RI: reference interval established by non-parametric method; [b] CI: confidence interval established by non-parametric method; [*] may be overestimated due to > 2% recorded sodium equal to the existing RVC DL lower reference limits 142 mmol/L; [§] may be underestimated due to > 2% recorded sodium equal to the existing RVC DL upper reference limits 153 mmol/L; [$] may be underestimated due to > 2% recorded creatinine equal to the existing RVC DL upper reference limits 122 µmol/L; [#] may be overestimated due to > 2% recorded ALP equal to the existing RVC DL lower reference limits 19 U/L;.

Table Z in S1 File. Tentative breed-specific reference intervals for the Golden Retriever (n=121; 18 intact females, 48 neutered females, 28 intact males and 27 neutered males). The median (minimum, maximum) age was 6.75 (0.58, 13.83) years.

Analyte	SI Units	RI[a]	Lower reference limit 90% CI[b]	Upper reference limit 90% CI[b]
Total protein	g/L	54.0~68.3	51.4~54.7	64.8~70.1
Albumin	g/L	28.6~37.1	28.3~29.2	36.7~38.0
Globulin	g/L	21.7~34.3	21.2~22.7	32.7~40.0
Sodium	mmol/L	143.0~153.0[§]	142.0~143.1	152.6[§]~153.0[§]
Potassium	mmol/L	4.10~5.20	3.90~4.10	5.10~5.30
Chloride	mmol/L	107.3~116.0	105.0~108.2	115.0~117.0
Calcium	mmol/L	2.22~2.68	2.15~2.29	2.64~2.69
Phosphorus	mmol/L	0.83~1.89	0.82~0.91	1.65~1.99
Creatinine	µmol/L	69~119	65~72	117~120
Cholesterol	mmol/L	4.2~8.9[#]	3.3~4.6	8.8[#]~8.9[#]
Total bilirubin	µmol/L	0~2.4[*]	0~0.1	2.2[*]~2.4[*]
ALT	U/L	19~69	17~20	65~86
CK	U/L	62[$]~370	62[$]~76[$]	322~390
ALP	U/L	20~166	19~26	108~214
Amylase	U/L	325~1175	186~383	943~1236
Lipase	U/L	80~512	78~90	390~677

[a] RI: reference interval established by non-parametric method; [b] CI: confidence interval established by non-parametric method; [§] may be underestimated due to > 2% recorded sodium equal to the existing RVC DL upper reference limits 153 mmol/L; [#] may be underestimated due to > 2% recorded cholesterol equal to the existing RVC DL upper reference limits 8.9 mmol/L; [*] may be underestimated due to > 2% recorded total bilirubin equal to the existing RVC DL upper reference limits 2.4 µmol/L; [$] may be overestimated due to > 2% recorded CK equal to the existing RVC DL lower reference limits 61 U/L.