

Table S2

measnum	projsym	varname	descrip	units	aspect	mean_sq	sum_sq	precise_pvalue_prf	adj.p.value.BH
55001	GMC01	bw	body weight	g	sex	1430,6797	1430,6797	8,54E-54	7,29E-53
55011	GMC01	distance_1	distance traveled, successive 5 min intervals	cm	sex	11070264,84	11070264,84	0,017268964	0,029733256
55012	GMC01	distance_2	distance traveled, successive 5 min intervals	cm	sex	10187682,41	10187682,41	0,018867798	0,03184407
55014	GMC01	distance_4	distance traveled, successive 5 min intervals	cm	sex	9302718,068	9302718,068	0,005921193	0,011162691
55015	GMC01	distance_total	distance traveled total, 20 min test	cm	sex	128386088,7	128386088,7	0,010241811	0,018375013
55032	GMC01	whole_speed	average speed in whole arena, 20 min test	cm/s	sex	142,56	142,56	0,002527463	0,005043114
55041	GMC01	center_distance	distance traveled in center of arena, 20 min test	cm	sex	59353677,98	59353677,98	1,01E-06	2,80E-06
55043	GMC01	center_permanence	permanence time in center of arena, 20 min test	s	sex	14736,8909	14736,8909	0,017774422	0,030298117
55046	GMC01	center_entries	number of entries in center of arena, 20 min test	n	sex	60746,8225	60746,8225	0,0001043	0,000250204
55051	GMC01	center_distance_1	center distance, successive 5 min intervals	%	sex	521,4614	521,4614	1,22E-05	3,20E-05
55052	GMC01	center_distance_2	center distance, successive 5 min intervals	%	sex	216,1855	216,1855	0,013523007	0,023811645
55054	GMC01	center_distance_4	center distance, successive 5 min intervals	%	sex	464,2466	464,2466	0,001374733	0,002849569
55055	GMC01	center_distance_total	percentage of total distance in center, 20 min test	%	sex	278,4916	278,4916	0,000296069	0,000670672
55061	GMC01	center_time_1	center time, successive 5 min intervals	%	sex	337,8764	337,8764	2,92E-05	7,38E-05
55065	GMC01	center_time_total	percentage of total time spent in center, 20 min test	%	sex	102,2582	102,2582	0,017840914	0,030350877
55073	GMC01	periphery_permanence	permanence time in periphery, 20 min test	s	sex	14738,2754	14738,2754	0,01776947	0,030298117
55074	GMC01	periphery_speed	average speed in periphery, 20 min test	cm/s	sex	86,4927	86,4927	0,012793689	0,022714782
55101	GMC02	bw	body weight	g	sex	1359,0134	1359,0134	4,01E-58	3,80E-57
55111	GMC02	front_paws1	forelimb grip strength	g	sex	8606,9004	8606,9004	1,95E-08	6,00E-08
55112	GMC02	front_paws2	forelimb grip strength	g	sex	9693,9945	9693,9945	5,76E-10	1,98E-09
55113	GMC02	front_paws3	forelimb grip strength	g	sex	11139,1204	11139,1204	1,83E-10	6,47E-10
55114	GMC02	front_paws_mean	forelimb grip strength, mean	g	sex	9825,4147	9825,4147	1,47E-11	5,51E-11
55115	GMC02	front_paws_adj	forelimb grip strength (mean) normalized to body w ratio	g	sex	18,2353	18,2353	7,40E-08	2,21E-07
55121	GMC02	all_paws1	forelimb and hindlimb grip strength	g	sex	25603,4017	25603,4017	1,52E-10	5,42E-10
55122	GMC02	all_paws2	forelimb and hindlimb grip strength	g	sex	25707,664	25707,664	7,72E-11	2,77E-10
55123	GMC02	all_paws3	forelimb and hindlimb grip strength	g	sex	23154,732	23154,732	1,60E-09	5,31E-09
55124	GMC02	all_paws_mean	forelimb and hindlimb grip strength, mean	g	sex	24815,0517	24815,0517	1,38E-11	5,20E-11
55125	GMC02	all_paws_adj	forelimb and hindlimb grip strength (mean) normalized to body w ratio	g	sex	80,93	80,93	2,04E-11	7,54E-11
55201	GMC03	bw	body weight	g	sex	1359,0134	1359,0134	4,01E-58	3,80E-57
55211	GMC03	coat_app	coat appearance (1=tidy, 2=irregular)	score	sex	0,743	0,743	0,000210401	0,000485628
55214	GMC03	pelvic_elev	pelvic elevation (0=less than 5, 1=5 or more, 2=no di)	score	sex	0,3968	0,3968	0,019981305	0,033590618
55222	GMC03	urinate	urination (0=present, 1=absent)	score	sex	1,1478	1,1478	0,017665989	0,030233978
55301	GMC04	bw	body weight	g	sex	1459,5067	1459,5067	3,50E-60	3,56E-59
55313	GMC04	LatFall_3	latency to fall from accelerating rotarod (8rpm/min)	s	sex	48850,8333	48850,8333	0,006639853	0,012380862
55401	GMC05	bw	body weight	g	sex	1308,5151	1308,5151	2,36E-47	1,72E-46
55413	GMC05	ASR_80	acoustic startle response (ASR)	amplitude	sex	167753,5938	167753,5938	0,000414945	0,000932534
55414	GMC05	ASR_85	acoustic startle response (ASR)	amplitude	sex	285788,1175	285788,1175	0,000338308	0,000764326
55415	GMC05	ASR_90	acoustic startle response (ASR)	amplitude	sex	681730,8564	681730,8564	3,05E-05	7,65E-05
55416	GMC05	ASR_100	acoustic startle response (ASR)	amplitude	sex	2449395,913	2449395,913	7,92E-11	2,83E-10
55417	GMC05	ASR_110	acoustic startle response (ASR)	amplitude	sex	2831425,016	2831425,016	6,55E-09	2,06E-08
55418	GMC05	ASR_120	acoustic startle response (ASR)	amplitude	sex	2780450,346	2780450,346	4,36E-10	1,51E-09
55421	GMC05	ASR_PP_67	acoustic startle response (ASR), 110 db sound pressure	amplitude	sex	1203366,608	1203366,608	0,000777041	0,001688532
55422	GMC05	ASR_PP_69	acoustic startle response (ASR), 110 db sound pressure	amplitude	sex	942198,5579	942198,5579	0,002217497	0,004476932
55424	GMC05	ASR_PP_81	acoustic startle response (ASR), 110 db sound pressure	amplitude	sex	395080,3094	395080,3094	0,011681732	0,020827138
55441	GMC05	ASR_ISI_5	acoustic startle response (ASR)	amplitude	sex	780801,0222	780801,0222	0,003700114	0,007149088
55442	GMC05	ASR_ISI_25	acoustic startle response (ASR)	amplitude	sex	590501,18	590501,18	0,006850738	0,012690955
55443	GMC05	ASR_ISI_100	acoustic startle response (ASR)	amplitude	sex	1947555,003	1947555,003	4,51E-07	1,29E-06
55501	GMC06	bw_before_fast	body weight	g	sex	1504,4385	1504,4385	6,64E-45	4,57E-44
55502	GMC06	bw_after_fast	body weight	g	sex	1108,1075	1108,1075	1,64E-33	9,45E-33
55521	GMC06	CHOL	total cholesterol (plasma CHOL, 16h fast)	mmol/L	sex	21,101	21,101	6,02E-20	2,62E-19
55522	GMC06	HDL	HDL cholesterol (plasma HDL, 16h fast)	mmol/L	sex	7,9561	7,9561	5,94E-23	2,87E-22
55523	GMC06	nonHDL	non-HDL cholesterol (plasma non-HDL) (CHOL minus HDL)	mmol/L	sex	3,1421	3,1421	1,65E-08	5,09E-08
55525	GMC06	TG	triglyceride (plasma TG, 16h fast)	mmol/L	sex	15,1643	15,1643	4,38E-09	1,40E-08
55601	GMC07	bw	body weight	g	sex	1713,9662	1713,9662	3,68E-55	3,20E-54
55701	GMC08	TEWL_adj	transepidermal water loss, normalized	g/m²/h	sex	1517,132	1517,132	5,40E-09	1,71E-08
55702	GMC08	TEWL_CV	coefficient of variation of transepidermal water loss	%	sex	0,2441	0,2441	0,020874489	0,035023209
55801	GMC09	bw_before	body weight before testing	g	sex	1801,8796	1801,8796	9,07E-58	8,33E-57
55802	GMC09	bw_after	body weight after testing	g	sex	1570,5699	1570,5699	1,15E-53	9,63E-53
55811	GMC09	food	total food intake, 21 h test	g	sex	4,6511	4,6511	0,004475887	0,008551248
55831	GMC09	VO2_mean	mean oxygen consumption, 21 h test, 15 min bins	mL/h	sex	2176,1962	2176,1962	3,31E-09	1,07E-08
55832	GMC09	VO2_mean	mean carbon dioxide production, 21 h test, 15 min bins	mL/h	sex	1936,0486	1936,0486	3,34E-09	1,07E-08
55841	GMC09	heat_mean	mean heat production, 21 h test, 15 min bins	kJ/h	sex	0,9622	0,9622	1,05E-09	3,54E-09
55854	GMC09	breaks_YA_mean	mean ambulatory movement on Y-axis, 21 h test, 15 min bins	n	sex	3653637,389	3653637,389	0,001210807	0,002528189
55855	GMC09	breaks_YF_mean	mean fine movement on Y-axis, 21 h test, 15 min bins	n	sex	186226,535	186226,535	1,69E-05	4,36E-05
55856	GMC09	breaks_Z_mean	mean rearing movement on Z-axis, 21 h test, 15 min bins	n	sex	51728,9061	51728,9061	0,008198655	0,015025003
55857	GMC09	distance_mean	mean distance traveled, 21 h test, 15 min bins	cm	sex	63113483,86	63113483,86	0,030410652	0,049847787
55901	GMC10	bw_13wk	body weight	g	sex	1703,4363	1703,4363	1,67E-61	1,76E-60
55902	GMC10	bw_19wk	body weight	g	sex	1482,2183	1482,2183	1,65E-30	9,13E-30
55911	GMC10	fat_13wk	fat tissue mass, whole body with head (NMR)	g	sex	7,7576	7,7576	0,004606553	0,008781241
55921	GMC10	lean_13wk	lean tissue mass, whole body with head (NMR)	g	sex	530,802	530,802	8,13E-64	8,90E-63
55922	GMC10	lean_19wk	lean tissue mass, whole body with head (NMR)	g	sex	580,5071	580,5071	1,25E-42	8,31E-42
56001	GMC11	bw_before_fast	body weight	g	sex	1493,6175	1493,6175	4,48E-52	3,54E-51
56002	GMC11	bw_after_fast	body weight	g	sex	606,4132	606,4132	5,05E-22	2,34E-21
56012	GMC11	GLU_15	intraperitoneal glucose tolerance test (20% glucose)	mmol/L	sex	123,8224	123,8224	0,00270503	0,00535297
56013	GMC11	GLU_30	intraperitoneal glucose tolerance test (20% glucose)	mmol/L	sex	244,5688	244,5688	8,15E-05	0,000197229
56014	GMC11	GLU_60	intraperitoneal glucose tolerance test (20% glucose)	mmol/L	sex	147,4402	147,4402	0,002003305	0,004063711
56015	GMC11	GLU_120	intraperitoneal glucose tolerance test (20% glucose)	mmol/L	sex	98,762	98,762	0,002612468	0,005200577
56101	GMC12	bw	body weight	g	sex	1361,7984	1361,7984	8,38E-45	5,72E-44
56121	GMC12	LV_mass	left ventricular mass corrected	mg	sex	537,068	537,068	0,000653818	0,00144653
56124	GMC12	stroke_vol	stroke volume, volume of blood pumped from one v	mL/micro;L	sex	1105,6296	1105,6296	1,11E-05	2,91E-05
56125	GMC12	cardiac_output	cardiac output, volume of blood pumped by the heart	mL/min	sex	601,6338	601,6338	2,69E-11	9,83E-11
56133	GMC12	LVID_diastole	left ventricular internal dimension	mm	sex	2,4599	2,4599	0,000128014	0,000306229
56301	GMC14	bw	body weight	g	sex	1829,824	1829,824	6,39E-46	4,58E-45
56302	GMC14	body_length	body length	mm	sex	985,723	985,723	2,89E-15	1,16E-14
56321	GMC14	eye_length_L	eye axial length	mm	sex	0,1682	0,1682	2,66E-08	8,13E-08
56322	GMC14	eye_length_R	eye axial length	mm	sex	0,0413	0,0413	6,66E-05	0,000161657
56401	GMC15	WBC	white blood cell count (WBC; per volume x 10⁶)	n/micro;L	sex	44,817	44,817	0,001079811	0,002265746
56404	GMC15	RBC	red blood cell count (RBC; per volume x 10⁶)	n/micro;L	sex	10,7854	10,7854	0,001441421	0,002980566
56408	GMC15	MCV	mean RBC corpuscular volume (MCV)	fL	sex	44,3169	44,3169	0,00313221	0,006122571
56412	GMC15	MCH	calculated mean RBC corpuscular hemoglobin content	pg	sex	7,1457	7,1457	3,57E-05	8,91E-05
56431	GMC15	PLT	platelet count (PLT; units per volume x 10³)	n/micro;L	sex	913472,7423	913472,7423	0,000246321	0,000563963
56441	GMC15	PCT	plateletcrit (PCT)	%	sex	0,3509	0,3509	0,000253973	0,000579928

56501	GMC16	bw_17	body weight	g	sex	248,004	248,004	1,57E-07	4,65E-07
56502	GMC16	bw_21	body weight	g	sex	874,9392	874,9392	5,92E-13	2,27E-12
56513	GMC16	chloride_21	chloride (plasma Cl)	mmol/L	sex	71,5161	71,5161	0,002414171	0,004839676
56515	GMC16	iron_21	iron (plasma Fe)	µmol/L	sex	178,0431	178,0431	0,002809961	0,005529278
56519	GMC16	lactate_21	lactate (plasma)	mmol/L	sex	61,5057	61,5057	0,000802448	0,001726174
56522	GMC16	potassium_17	potassium (plasma K)	mmol/L	sex	1,1463	1,1463	0,0179027	0,030395439
56523	GMC16	potassium_21	potassium (plasma K)	mmol/L	sex	1,6669	1,6669	0,001868814	0,00380891
56524	GMC16	sodium_17	sodium (plasma Na)	mmol/L	sex	125,2895	125,2895	9,79E-05	0,0002362
56525	GMC16	sodium_21	sodium (plasma Na)	mmol/L	sex	177,4938	177,4938	5,36E-05	0,000131422
56526	GMC16	ALP_17	alkaline phosphatase (plasma ALP)	IU/L	sex	29484,9	29484,9	1,29E-09	4,32E-09
56527	GMC16	ALP_21	alkaline phosphatase (plasma ALP)	IU/L	sex	19323,9573	19323,9573	0,000798805	0,001722675
56531	GMC16	AST_21	aspartate transaminase (plasma AST)	IU/L	sex	49809,7037	49809,7037	0,000147037	0,000346877
56534	GMC16	amylase_17	alpha-amylase (plasma)	IU/L	sex	44822,3555	44822,3555	0,015739867	0,027488439
56535	GMC16	amylase_21	alpha-amylase (plasma)	IU/L	sex	284131,3036	284131,3036	7,20E-08	2,16E-07
56542	GMC16	total_protein_17	total protein (plasma TP)	g/L	sex	44,8855	44,8855	0,003981705	0,007641294
56543	GMC16	total_protein_21	total protein (plasma TP)	g/L	sex	52,9002	52,9002	0,008278988	0,015107384
56545	GMC16	urea_21	blood urea nitrogen (plasma BUN)	mmol/L	sex	31,7373	31,7373	0,000877812	0,001869454
56547	GMC16	CHOL_21	total cholesterol (plasma CHOL)	mmol/L	sex	10,7866	10,7866	5,35E-11	1,93E-10
56548	GMC16	TG_17	triglyceride (plasma TG)	mmol/L	sex	5,1429	5,1429	0,011674451	0,020827138
56549	GMC16	TG_21	triglyceride (plasma TG)	mmol/L	sex	23,5633	23,5633	3,12E-09	1,01E-08
56601	GMC17	bw	body weight	g	sex	1232,1548	1232,1548	1,35E-23	6,65E-23
56701	GMC18	bw	body weight	g	sex	1389,5884	1389,5884	1,25E-25	6,34E-25
56702	GMC18	body_length	body length	cm	sex	3,1327	3,1327	4,09E-13	1,57E-12
56711	GMC18	body_size	body size (1=small, 2=normal, 3=big)	designation	sex	3,7048	3,7048	7,85E-09	2,45E-08
56722	GMC18	LEANmass_Xhead	lean tissue mass, without head	g	sex	650,5533	650,5533	7,46E-23	3,58E-22
56723	GMC18	SOFTmass_Xhead	total soft tissue mass, without head	g	sex	1018,1182	1018,1182	9,96E-21	4,43E-20
56725	GMC18	bone_area_Xhead	bone area, without head	cm ²	sex	84,3412	84,3412	5,27E-05	0,000129598
56726	GMC18	bone_mass_Xhead	bone mass, without head	g	sex	0,3556	0,3556	2,20E-05	5,63E-05
56733	GMC18	LEANmass_wholebody	lean tissue mass, whole body including head	g	sex	761,739	761,739	3,18E-22	1,48E-21
56734	GMC18	SOFTmass_wholebody	total soft tissue mass, whole body including head	g	sex	1225,5008	1225,5008	6,85E-22	3,16E-21
56735	GMC18	bone_area_wholebody	bone area, whole body including head	cm ²	sex	94,5675	94,5675	6,09E-05	0,000148543
56736	GMC18	bone_mass_wholebody	bone mass, whole body including head	g	sex	0,442	0,442	4,31E-05	0,000106774
56912	GMC20	IgG3_17	immunoglobulin G3 (plasma IgG3)	µg/mL	sex	76063,6506	76063,6506	0,010219138	0,018372934
56914	GMC20	IgE_17	immunoglobulin E (plasma IgE)	ng/mL	sex	3582142,201	3582142,201	0,008601515	0,015629136
56915	GMC20	IgE_21	immunoglobulin E (plasma IgE)	ng/mL	sex	4648481,62	4648481,62	0,001944739	0,003954304
56916	GMC20	aDNA_17	anti-DNA autoantibodies (plasma)	sex	sex	0,0099	0,0099	0,000149156	0,000350908
56918	GMC20	RF_17	rheumatoid factor (plasma RF)	sex	sex	0,0065	0,0065	0,006144586	0,011532916
57001	GMC21	bw	body weight	g	sex	980,8556	980,8556	9,93E-16	4,02E-15
57021	GMC21	heart_wt	heart weight	mg	sex	37727,1327	37727,1327	1,10E-17	4,61E-17
57022	GMC21	liver_wt	liver weight	g	sex	4,5752	4,5752	2,22E-22	1,04E-21