

Additional file 1: Table S1. Blood parameter concentration from umbilical artery and vein of purebred fetuses (LW or MS) and crossbred fetuses (LWMS and MSLW) at 90 days and 110 days of gestation

Gestational age (days)		90				110				P-level			Method used for analysis
		LW	MSLW	LWMS	MS	LW	MSLW	LWMS	MS	T	G	T × G	
Arterial	glucose, mmol/L	1.87 ± 0.19	2.02 ± 0.19	2.12 ± 0.26	2.27 ± 0.17	2.51 ± 0.16	2.64 ± 0.33	2.00 ± 0.26	2.14 ± 0.22	0.14	0.78	0.16	Enzymatically (Glucose RTU kit: #61269, Biomérieux, Marcy l'étoile, France) [68]
Venous	glucose, mmol/L	1.98 ± 0.22	2.01 ± 0.23	2.25 ± 0.22	2.58 ± 0.27	2.72 ± 0.22	2.94 ± 0.27	2.17 ± 0.22	2.36 ± 0.25	0.06	0.06	0.06	Enzymatically (Glucose RTU kit: #61269, Biomérieux, Marcy l'étoile, France) [68]
Arterial	fructose, mmol/L	6.25 ± 0.57 ^{cd}	7.93 ± 0.51 ^e	5.77 ± 0.62 ^c	7.24 ± 0.48 ^{de}	2.77 ± 0.48 ^{ab}	3.13 ± 0.58 ^b	1.39 ± 0.18 ^a	1.83 ± 0.13 ^{ab}	<0.01	<0.01	0.07	Enzymatically (D-Fructose kit: #984302, Thermo Fisher Scientific, Vantaa, Finland) [68]
Venous	fructose, mmol/L	5.96 ± 0.44 ^{bc}	7.58 ± 0.47 ^c	5.79 ± 0.44 ^{bc}	7.25 ± 0.54 ^c	2.81 ± 0.44 ^a	3.22 ± 0.54 ^{ab}	1.39 ± 0.44 ^a	1.85 ± 0.50 ^a	<0.01	<0.01	0.10	Enzymatically (D-Fructose kit: #984302, Thermo Fisher Scientific, Vantaa, Finland) [68]
Arterial	lactate, mmol/L	2.31 ± 0.11 ^{ab}	2.72 ± 0.18 ^{bc}	4.08 ± 0.76 ^{cd}	4.96 ± 1.12 ^d	2.96 ± 0.41 ^{bc}	2.51 ± 0.38 ^{ab}	1.57 ± 0.12 ^{ab}	1.07 ± 0.11 ^a	<0.01	0.57	<0.01	Enzymatically (Lactate PAP kit: #61192, Biomérieux, Marcy l'étoile, France) [68]
Venous	lactate, mmol/L	2.50 ± 0.41 ^{bc}	2.78 ± 0.44 ^{bc}	4.10 ± 0.41 ^c	4.92 ± 0.50 ^c	2.93 ± 0.41 ^{bc}	2.71 ± 0.50 ^{bc}	1.73 ± 0.41 ^{ab}	1.25 ± 0.47 ^a	<0.01	0.46	<0.01	Enzymatically (Lactate PAP kit: #61192, Biomérieux, Marcy l'étoile, France) [68]
Arterial	albumin, g/L	5.13 ± 0.24 ^a	6.93 ± 0.25 ^{bc}	6.26 ± 0.42 ^{bc}	6.46 ± 0.52 ^{bc}	6.42 ± 0.34 ^{bc}	5.95 ± 0.30 ^{ab}	7.19 ± 0.24 ^c	8.41 ± 0.42 ^d	<0.01	<0.01	<0.01	Colorimetric (Albumin Kit: #6105, Biomérieux, Marcy l'étoile, France) [68]
Venous	albumin, g/L	4.73 ± 0.25 ^a	6.29 ± 0.42 ^b	6.04 ± 0.37 ^b	7.47 ± 0.24 ^c	5.92 ± 0.34 ^b	5.82 ± 0.28 ^b	7.31 ± 0.29 ^c	8.51 ± 0.30 ^d	<0.01	0.04	0.04	Colorimetric (Albumin Kit: #6105, Biomérieux, Marcy l'étoile, France) [68]
Arterial	cortisol, ng/mL	21.04 ± 2.66	15.27 ± 3.16	17.56 ± 1.76	17.01 ± 2.85	44.01 ± 6.10	39.92 ± 4.17	61.35 ± 14.63	73.44 ± 13.52	<0.01	0.38	0.49	Radioimmunoassay [69]
Venous	cortisol, ng/mL	21.26 ± 5.82	14.78 ± 6.18	20.06 ± 6.18	17.59 ± 7.14	41.08 ± 5.82	35.51 ± 7.14	46.16 ± 5.82	63.05 ± 6.60	<0.01	0.10	0.34	Radioimmunoassay [69]
Arterial	noradrenaline, ng/mL	2.51 ± 0.64	1.06 ± 0.33	2.37 ± 0.60	0.63 ± 0.17	3.83 ± 0.74	1.95 ± 0.49	2.34 ± 0.58	3.45 ± 0.85	<0.01	0.06	0.12	HPLC assay with electrochemical detection [70] after solvent extraction [71]
Venous	noradrenaline, ng/mL	1.12 ± 0.32	0.71 ± 0.36	0.96 ± 0.34	0.68 ± 0.48	2.93 ± 0.34	1.61 ± 0.43	1.48 ± 0.36	2.14 ± 0.36	<0.01	0.09	0.67	HPLC assay with electrochemical detection [70] after solvent extraction [71]
Arterial	adrenaline, ng/mL	1.05 ± 0.56	1.08 ± 0.49	0.91 ± 0.13	2.33 ± 1.84	0.61 ± 0.44	0.10 ± 0.02	0.10 ± 0.03	0.13 ± 0.02	<0.01	0.86	0.37	HPLC assay with electrochemical detection [70] after solvent extraction

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Venous adrenaline, ng/mL	0.15 ± 0.09	0.38 ± 0.11	0.27 ± 0.12	0.24 ± 0.19	0.14 ± 0.10	0.11 ± 0.13	0.08 ± 0.15	0.08 ± 0.12	0.04	0.76	0.54	HPLC assay with electrochemical detection [70] after solvent extraction [71]
Arterial dopamine, ng/mL	0.21 ± 0.03	0.18 ± 0.03	0.18 ± 0.05	0.62 ± 0.35	0.49 ± 0.16	0.29 ± 0.03	0.61 ± 0.20	0.89 ± 0.35	<0.01	0.07	0.40	HPLC assay with electrochemical detection [70] after solvent extraction [71]
Venous dopamine, ng/mL	0.19 ± 0.11	0.18 ± 0.12	0.16 ± 0.14	0.40 ± 0.19	0.33 ± 0.12	0.27 ± 0.15	0.47 ± 0.12	0.76 ± 0.14	0.01	0.03	0.44	HPLC assay with electrochemical detection [70] after solvent extraction [71]
Arterial total T4, µg/dL	3.70 ± 0.15 ^a	5.10 ± 0.16 ^{bc}	4.68 ± 0.14 ^{ab}	5.10 ± 0.29 ^{bc}	5.92 ± 0.50 ^c	5.87 ± 0.50 ^c	5.64 ± 0.37 ^{bc}	6.14 ± 0.43 ^c	<0.01	0.02	0.05	Automated immunoassay (AIA-360, Tosoh Bioscience, San Francisco, CA)
Arterial free T4, µg/dL	0.98 ± 0.05 ^a	1.40 ± 0.04 ^b	1.35 ± 0.03 ^b	1.38 ± 0.04 ^b	1.48 ± 0.10 ^b	1.44 ± 0.15 ^b	1.27 ± 0.06 ^b	1.44 ± 0.06 ^b	0.01	0.01	<0.01	Automated immunoassay (AIA-360, Tosoh Bioscience, San Francisco, CA)
Arterial total T3, ng/dL	22.73 ± 0.99 ^a	26.87 ± 2.12 ^{ab}	38.56 ± 8.87 ^{abc}	53.38 ± 11.16 ^c	38.74 ± 3.08 ^{abc}	35.17 ± 3.54 ^{abc}	44.98 ± 4.90 ^{bc}	39.61 ± 5.16 ^{abc}	0.08	0.07	0.07	Automated immunoassay (AIA-360, Tosoh Bioscience, San Francisco, CA)
Arterial free T3, ng/dL	0.58 ± 0.02	0.73 ± 0.08	1.16 ± 0.31	1.41 ± 0.40	0.96 ± 0.09	0.85 ± 0.10	0.97 ± 0.12	0.93 ± 0.12	0.90	0.26	0.21	Automated immunoassay (AIA-360, Tosoh Bioscience, San Francisco, CA)
Arterial IGF1, ng/mL	31.68 ± 3.31	24.31 ± 3.19	25.40 ± 1.95	21.56 ± 1.81	29.36 ± 4.06	26.08 ± 2.95	26.71 ± 1.89	33.17 ± 6.20	0.25	0.37	0.23	IRMA IGF-1 kit [68]

Within a same row, means (SEM) (n=6-9/group) not sharing the same superscript letter differ significantly ($P \leq 0.05$) for the effects of gestational age (Time, T) and of genotype (G)

LW, purebred fetuses from Large White sows; MSLW, crossbred fetuses from Large White sows; LWMS, crossbred fetuses from Meishan sows; MS, purebred fetuses from Meishan sows