

Article title: Transcriptome analysis of adipose tissue from pigs divergent in feed efficiency reveals alteration in gene networks related to adipose growth, lipid metabolism, extracellular matrix and immune response

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Table S3 Physiological system development and function categories significantly enriched with differentially expressed genes including a list of sub-categories contained within each function.

Category	P-value range	Sub-functions*
Cardiovascular System Development &Function	1.65E-09 - 6.82E-04	blood pressure (0.69), vascularization of absolute anatomical region (-0.11), proliferation of vascular smooth muscle cells (-0.29), tubulation of endothelial cells (-0.47), vascularization (-0.49), endothelial cell development (-0.71), vasculogenesis (-0.93), binding of endothelial cells (-1.15), development of vasculature (-1.57), angiogenesis (-1.57), quantity of blood vessel (-1.94), cell movement of endothelial cells (-2.05), movement of vascular endothelial cells (-2.05)
Organismal Development	1.65E-09 - 7.83E-04	vascularization of absolute anatomical region (-0.11), formation of kidney (-0.12), development of abdomen (-0.32), development of body trunk (-0.4), tubulation of endothelial cells (-0.47), endothelial cell development (-0.71), lymphopoiesis (-0.77), vasculogenesis (-0.93), angiogenesis (-1.57), quantity of blood vessel (-1.94)
Tissue Morphology	3.24E-09 - 6.91E-04	degeneration of neurons (1.11), quantity of embryonic tissue (0.48), quantity of T lymphocytes (0.13), quantity of neutrophils (-0.16), quantity of granulocytes (-0.34), quantity of Th17 cells (-0.39), quantity of helper T lymphocytes (-0.53), quantity of cells (-0.81), quantity of muscle cells (-0.93), quantity of blood cells (-0.93), quantity of lymphocytes (-0.96), quantity of mononuclear leukocytes (-1), quantity of leukocytes (-1.05), quantity of lymphatic system cells (-1.13), quantity of myeloid cells (-1.32), quantity of phagocytes (-1.44), quantity of blood vessel (-1.94), quantity of connective tissue (-2.44)

Haematological System Development & Function	6.12E-09 - 8.14E-04	granulopoiesis (0.88), blood pressure (0.69), cellular infiltration by inflammatory leukocytes (0.56), differentiation of myeloid leukocytes (0.39), quantity of T lymphocytes (0.13), leukopoiesis (0.13), quantity of neutrophils (-0.16), cellular infiltration by leukocytes (-0.31), quantity of granulocytes (-0.34), quantity of Th17 cells (-0.39), expansion of leukocytes (-0.44), quantity of helper T lymphocytes (-0.53), hematopoiesis of mononuclear leukocytes (-0.56), lymphopoiesis (-0.77), infiltration by neutrophils (-0.92), quantity of blood cells (-0.93), quantity of lymphocytes (-0.96), quantity of mononuclear leukocytes (-1), cellular infiltration by granulocytes (-1.04), quantity of leukocytes (-1.05), cellular infiltration by phagocytes (-1.06), adhesion of leukocyte cell lines (-1.07), quantity of myeloid cells (-1.32), cell proliferation of leukocyte cell lines (-1.38), quantity of phagocytes (-1.44), cell movement of macrophages (-1.59), cell movement of granulocytes (-1.68), cell movement of neutrophils (-1.86), recruitment of neutrophils (-1.96), activation of phagocytes (-1.99), accumulation of leukocytes (-2.01), accumulation of myeloid cells (-2.18), recruitment of phagocytes (-2.30), chemotaxis of phagocytes (-2.32), proliferation of immune cells (-2.36), chemotaxis of neutrophils (-2.37), migration of mononuclear leukocytes (-2.44), cell movement of leukocytes (-2.50), accumulation of blood cells (-2.55), cell movement of antigen presenting cells (-2.55), chemotaxis of leukocytes (-2.56), cell movement of phagocytes (-2.62), cell movement of mononuclear leukocytes (-2.70), binding of professional phagocytic cells (-2.71)
Immune Cell Trafficking	6.62E-08 - 7.52E-04	cellular infiltration by inflammatory leukocytes (0.56), cellular infiltration by leukocytes (-0.31), infiltration by neutrophils (-0.92), cellular infiltration by granulocytes (-1.04), cellular infiltration by phagocytes (-1.06), adhesion of leukocyte cell lines (-1.07), cell movement of macrophages (-1.59), cell movement of granulocytes (-1.68), cell movement of neutrophils (-1.86), recruitment of neutrophils (-1.96), activation of phagocytes (-1.99), accumulation of leukocytes (-2.01), recruitment of phagocytes (-2.30), chemotaxis of phagocytes (-2.32), chemotaxis of neutrophils (-2.37), migration of mononuclear leukocytes (-2.44), cell movement of leukocytes (-2.50), cell movement of antigen presenting cells (-2.55), chemotaxis of leukocytes (-2.56), cell movement of phagocytes (-2.62), cell movement of mononuclear leukocytes (-2.70), leukocyte migration (-2.82)
Lymphoid Tissue Structure & Development	1.03E-07 - 8.14E-04	granulopoiesis (0.88), differentiation of myeloid leukocytes (0.39), quantity of T lymphocytes (0.13), leukopoiesis (0.13), expansion of lymphatic system cells (-0.06), quantity of Th17 cells (-0.39), expansion of leukocytes (-0.44), quantity of helper T lymphocytes (-0.53), hematopoiesis of mononuclear leukocytes (-0.56), lymphopoiesis (-0.77), quantity of lymphocytes (-0.96), quantity of lymphatic system cells (-1.13), proliferation of lymphatic system cells (-1.97), proliferation of immune cells (-2.36)
Organ Development	3.67E-07 - 7.76E-04	formation of kidney (-0.12), proliferation of muscle cells (-0.19), growth of lung (-0.25), proliferation of vascular smooth muscle cells (-0.29), proliferation of smooth muscle cells (-0.43), proliferation of lung cells (-0.75), lymphopoiesis (-0.77)
Skeletal & Muscular System Development & Function	3.67E-07 - 6.51E-04	contractility of muscle (0.79), function of muscle (0.57), proliferation of muscle cells (-0.19), proliferation of vascular smooth muscle cells (-0.29), proliferation of smooth muscle cells (-0.43), cell movement of smooth muscle cells (-0.86), quantity of muscle cells (-0.93), migration of muscle cells (-1.34)
Connective Tissue Development & Function	1.18E-06 - 7.88E-04	proliferation of stromal cells (0.06), differentiation of connective tissue cells (-0.62), stimulation of connective tissue cells (-1.41), quantity of connective tissue (-2.44)
Nervous System Development & Function	1.46E-06 - 8.07E-04	differentiation of neurons (1.03),

Tissue Development	3.67E-07 - 7.88E-04	differentiation of neurons (1.03), granulopoiesis (0.88), differentiation of myeloid leukocytes (0.39), leukopoiesis (0.13), proliferation of stromal cells (0.06), formation of kidney (-0.12), proliferation of muscle cells (-0.19), proliferation of vascular smooth muscle cells (-0.29), proliferation of smooth muscle cells (-0.43), tubulation of endothelial cells (-0.47), hematopoiesis of mononuclear leukocytes (-0.56), development of epithelial tissue (-0.6), differentiation of connective tissue cells (-0.62), tubulation of cells (-0.67), endothelial cell development (-0.71), lymphopoiesis (-0.77), stimulation of connective tissue cells (-1.41), deposition of extracellular matrix (-1.97), accumulation of leukocytes (-2.01), accumulation of myeloid cells (-2.18), quantity of connective tissue (-2.44), accumulation of blood cells (-2.55), accumulation of cells (-2.80)
Organismal Survival	2.29E-06 - 6.18E-04	survival of organism (1.45), organismal death (-0.33)
Organ Morphology	4.73E-06 - 7.83E-04	quantity of muscle cells (-0.93)
Cell-mediated Immune Response	8.85E-06 - 5.54E-04	conversion of naive T lymphocytes (NA), distribution of T lymphocytes (NA)
Embryonic Development	8.85E-06 - 7.48E-04	quantity of embryo (0.48), quantity of embryonic tissue (0.48), formation of kidney (-0.12), development of abdomen (-0.32), development of body trunk (-0.4), lymphopoiesis (-0.77), tubulogenesis (-1.33)
Hematopoiesis	8.85E-06 - 7.38E-04	granulopoiesis (0.88), differentiation of myeloid leukocytes (0.39), leukopoiesis (0.13), hematopoiesis of mononuclear leukocytes (-0.56), lymphopoiesis (-0.77)
Renal & Urological System Development & Function	2.54E-05 - 6.47E-04	cell proliferation of kidney cell lines (0.54), formation of kidney (-0.12)
Reproductive System Development & Function	9.36E-05 - 5.54E-04	morphogenesis of lactiferous duct (NA)
Respiratory System Development & Function	1.75E-04 - 7.20E-04	growth of lung (-0.25), abnormal morphology of respiratory system (NA), proliferation of lung cells (-0.75)
Digestive System Development & Function	1.81E-04 - 7.83E-04	morphology of digestive system (NA), morphology of intestine (NA)
Behaviour	4.40E-04 - 4.40E-04	behavior (-0.21)

*Significantly inhibited (z-score < -2) sub-categories are highlighted in green; NA: no available z-score.