

Table S6. Functional processes enriched by MetaCore analysis based on the differentially expressed genes between *Klf5*-wildtype and *Klf5*-null mouse dorsal prostates. Different processes with the same function are grouped together and ranked based on *p*-values (from low to high, *p*-value <0.01). Genes contributing to a process are listed.

Process	<i>p</i> -Value	Genes	Number
<u>Development</u>			
Blood vessel morphogenesis	1.57E-08	IL-1 beta, HEY1, Galpha(i)-specific peptide GPCRs, Lactoferrin, Galpha(q)-specific nucleotide-like GPCRs, VEGFR-1, EGF, TIE2, TBX1, Ceruloplasmin, Galpha(i)-specific amine GPCRs, IL-1 alpha, ErbB4, Galpha(q)-specific peptide GPCRs, Angiopoietin 2, F263, Transferrin, PDE3A, LEKTI, PGAR, PLGF, GRB14, KLF5, MSG1, Endomucin, L1CAM, Galpha(q)-specific amine GPCRs, G-protein alpha-i family, FOXC1, Tissue kallikreins, Neuropilin-1, Galpha(i)-specific EDG GPCRs, Protein kinase G, Galpha(s)-specific nucleotide-like GPCRs, VCAM1, EDNRB, Adenosine A2b receptor	37
Regulation of angiogenesis	2.37E-04	AGTR1, IL-1 beta, Endoglin, N-cadherin, Angiotensin III, COUP-TFII, IL-1 alpha, Galpha(i)-specific peptide GPCRs, VEGFR-1, TIE2, Galpha(q)-specific peptide GPCRs, EDNRB, HOXA3, PKC, Ephrin-A, LEKTI, IL-18, Leptin receptor, PGAR, Ephrin-A receptor 4, Angiomotin (AMOT), Ephrin-B2, G-protein alpha-i family, Connexin 43, IP3 receptor, IL8RB	26
Neurogenesis_ Axonal guidance	4.01E-04	Semaphorin 3C, UNC5B, N-cadherin, Semaphorin 6A, ADAM23, PCSK5, SPOCK2, Ephrin-A3, Calyculin, CRMP4, DARPP-32, Ephrin-A, FEZ1, Syntenin 2, Semaphorin 3A, Integrin, MyHC, Ephrin-A receptor 4, Ephrin-B2, L1CAM, PPAR-gamma, NEFH, Syndecan-2, Neuropilin-1, IP3 receptor, Semaphorin 3F, Guanine deaminase	27
Neurogenesis in	6.18E-04	FZD8, WNT4, HEY1, CHRM, Myelin basic	23

general		protein, EGR2 (Krox20), VEGFR-1, WNT5A, Galpha(i)-specific amine GPCRs, EDNRB, HOXA2, hASH1, Midkine, Collagen IV, ATH1, RET, ACM2, WNT, G-protein alpha-i family, PTPR-zeta, Frizzled, G-protein alpha-o, Nectin	
Neurogenesis_ Synaptogenesis	6.20E-03	Neurologin 1, Homer, PEP-19, SYP, ErbB4, Synaptotagmin VIII, Endophilin A1, Synaptotagmin-IX, ADAR2, Piccolo, Ephrin-B2, WNT, Neurexin 1-beta, TSLC1, Frizzled, Protocadherin 18, Thrombospondin 2	17
Cartilage development	9.55E-03	COL1A1, Fibrillin 1, MMP-13, COL1A2, Aggrecanase-1, Chondroadherin, BMPR1B, Collagen III	8
<u>Cell adhesion</u>			
Platelet-endothelium-leucocyte interactions	6.37E-07	ITGAX, IL-1 beta, Endoglin, EGF, G-CSF receptor, VCAM1, MMP-13, PDGF-B, Collagen IV, LEKTI, PDGF receptor, IL-18, TFPI-2, ESAM, 08p22/MSR1(CD204), Protein C, LDLR, P-selectin, PDGF-D, PDGF-R-beta, Collagen III, Thrombospondin 2, KNG, Collagen I, CD40(TNFRSF5), Tetraspanin-2, COL5A2, PZP, OLR1	29
Cell-matrix interactions	1.33E-05	COL1A1, 90K, MMP-12, Trypsin, Fibrillin 1, COL4A2, ADAM23, Collagen X, COL4A1, MMP-13, ADAM-TS9, , COL5A2, Fibulin-3, Chondroadherin, Fibulin-5, Tenascin-C, LAMB1, Integrin, SP-D, Fibrillin 2, Collagen I, TIMP1, Connexin 43, Collagen III, Tenascin-X, MMP-8, COL1A2, Aggrecanase-1	28
Synaptic contact	4.94E-05	Neurologin 1, Homer, N-cadherin, CNTN1 (F3), Caspr2, Neurexin 1-alpha, Rab-27A, Delta-catenin, Synaptotagmin VIII, GABA-A receptor, Ephrin-A, K(+) channel, subfamily J, CaMK II beta, Ephrin-B2, GABA-A receptor epsilon subunit, Syndecan-2, L1CAM, IP3 receptor, Alpha-catenin Synaptotagmin-IX,	21

Proteolysis

ECM remodeling 2.50E-05 MMP-12, Osteopontin, Collagen X, MMP-8, MMP-13, Trypsin II, Aggrecanase-1, Collagen IV, Alpha 1-antitrypsin, TFPI-2, PACE4, Tenascin-C, SERPINA3 (ACT), Collagen I, TIMP1, ADAM28, Collagen III 17

Connective tissue degradation 7.01E-05 MMP-12, ADAM23, MMP-8, MMP-13, ADAM-TS9, Trypsin II, Aggrecanase-1, Collagen IV, CD23, Alpha 1-antitrypsin, TFPI-2, PACE4, Tenascin-C, SERPINA3 (ACT), Tissue kallikreins, Collagen I, ADAM28, Collagen III 18

Chemotaxis

Chemotaxis 4.97E-04 CCL28, CCL3L1, GRO-2, IL-1 beta, SP-D, C5a Galpha(i)-specific peptide GPCRs, Osteopontin, CCL20, IL-1 alpha, Galpha(q)-specific peptide GPCRs, CCL13, PPBP, Integrin, G-protein alpha-i family, Lymphotactin, IL8RB, CCL25, GRO-3, 19

Inflammation

Innate inflammatory response 6.60E-03 PKC-zeta, IL-1 beta, IL-1F9, CCL20, IL-1 alpha, PGES, PGRP-S, CD14, IL-18, Tissue factor, PLA2, IP3R2, Factor I, G-protein alpha-i family, SP-D, RIPK3, C5a, sCD14, IP3 receptor 19
