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Title: The effects of exosomes derived from trabecular meshwork cells on Schlemm's

canal endothelial cells

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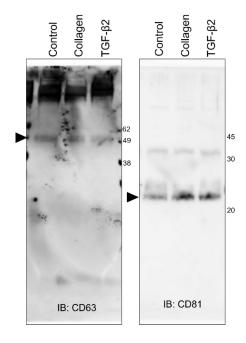
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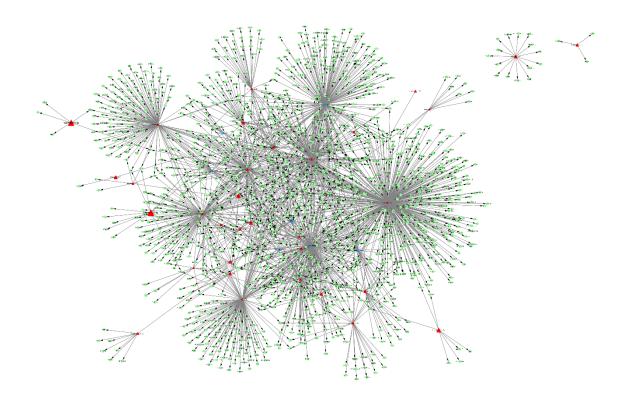
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Supplementary Figure 1: Full-length blots for Figure 1B



Supplementary Figure 2

A constructed network of 46 miRNAs and 1440 mRNAs in TGF- β 2-stimulated cultures.



Supplementary Table S1: Genes associated with enriched GO and KEGG terms in

the TGF- β 2-treated group compared to the control group.

Category	ID	Term	-LOG10(P-value)	Genes
GOTERM	GO:0034097	Response to cytokine	5.91	JUND, AVPR2, PDX1, OSMR, DDOST, PML, RELB, GNAO1, MAPKAPK3, TIMP2, PGGT1B, RARA, TIMP1, JUNB, IL6R, BCL2L1
GOTERM	GO:0045944	Positive regulation of transcription from RNA polymerase II promoter	3.69	BACHI, ELKI, SOX2, CREBSLI, ZMIZZ, NFATCZIP, JUNB, CDKSRAPS, ACVRI, EOMES, LMOI, CASK, BHLHAIS, EBF4, SFRP2, TBLIXRI, NCL, NOTCHI, GATA6, NBLH2, RAHI, ZNF31, RIPKI, ZSTB7C, SMAD4, INND, BCLIIB, SMAD7, LHXS, CCPG1, PIN1, SP7, OGT, ACVRLI, BASHLI, RAHG, SMDPR2, PTFRN, NRZEI, CTFM51, KRKB, MED12, SIXS, SUMDO, FEZEY, NCKI, MYOG, KDM58, BCAS, SS18, EBM14, PARP1, NMC1, PPDFSS, ENZ, ESPEP, BCSCR, REBLI, IFNG, MEDIL, ILIB, RAPA, HDAC4, NOCK, CMDAG4, CSENDAG, CSENDAG, SCSCR, REBLI, IFNG, MEDIL, ILIB, RAPA, HDAC4, NOCK, CMDAG4, CSENDAG, CSENDAG, SSCSR, CSENDAG, RASIC, CONNES, NYCC, STDNI, NRHIB, LIERGA
GOTERM	GO:0000122	Negative regulation of transcription from RNA bolymerase II promoter	2.96	GFF2H1, MAPK14, USF1, PML, GRN1, ASXL1, MEISI, TRAP4, NFIA, TNIP2, WTI, TTCS, SSEP4, TAF1, NEUROGS ENT496, RARG, ENT196, EPO, SUV39H1, NRIB1, NOC21, BACH1, SOX2, MECP2, HMG20A, ANKRD2, FEZF2, JUNB, ZNF565, EOMES, LMO1, KLF11, HES6, HBZ, PARP1, DNMT18, MAGREATE, RUNN31, FOXDP2, EDDT, SELD, SERAS, IFNO, TELLIRIR, RARA, TENDP, AUGBA, HDAC4, FOXC2, DNMT1, NOTCH1, SERE, AXX, GATA.6, DSPS2, ASCL1, ASCL2, REEL, DNARS, ESTEP18, REMIO, DRESD, HEXING1, PAKS, CRSK, SMADA, UNDO, MEDI, STAT3, PDXI, NHH, SLPP2, SMAD7, ASXL1, PSS2, ASCL1, ASCL2, REEL, DNARS, ESTEP18, REMIO, DRESD, HEXING1, PAKS, CRSK, SMADA, UNDO, MEDI, STAT3, PDXI, NHH, SLPP2, SMAD7, ASXL1, """ """ """ """ """ """ """
		polymerase ii promoter		EFNA1, NFIA, WT1, TRPV4, BHLHE40, CALR, PKIG, RCOR3, ZNF136, FGFR1, NEUROG3
GOTERM	GO:0003682	Chromatin binding	2.93	HDAC4, CESPB, DNATI, SATE2, PARI, SUV39HI, HP1BP3, ARX, GATAG, NOCIL, ASCLI, ELKI, RELB, MECP2, MED12, CRESSLI, ANKRDZ, FEZP2, EOMES, KDM6B, MED3, BCA38, SAMDA, MED6, NPAC, NCOA5, MBD1, CBX1, ACTL6A, DNAT3A, PDX1, OTF2H1, MLH1, RECR. MEIS1, POLR3A, NFIA, TTCS, CSNK2B, GNNC, TOP1, AUBA, RAN, ASFIA
GOTERM	GO:0005515	Protein binding	2.67	IPOLE, RINHL, SPELS, FRANDEN, PRIVADE, COLOFES, ENGLI NOCAL, BACHL, ELIK, IZCHILLD, LEG, COMITO, NUBL, WORSE, PRIND, ZULZI, CREBILL, PERACA, PERSS, SURBA, STAJE, CONSTRUCT, STABLE, STANDER, ST
GOTERM	GO:0016020	Membrane	2.63	RERGL, BTIML, FURL, ZAN, SLC33AI, TNC, ICAMC, SLC4A2, ENDI, COMT., ACTB., ABHD13, STS, PSMD2, CRESSLI, PAPOLG, NIPALIZ, ARLISES, DAGI, SPA17, PRILOZ, PEKACA, LIGK, COKSTAPS, KRT6A, SLC12A6, ACVRI, MAGES BROX, MULI, COKALI, COTRIGH, VINCES, SINGLE, STRIGH, TSTS, SIGRE, NISCH, ACT, CACCRIS, POR NICK, INNAES, IPAGA, IPED, NACAG, BLAGS, PLD, IGNOPI, FURL, STRIGH, CREI, STSG, LIGH, CRIS, SINGLE, NIPAGA, ARDE, SPA17, SLC5AS, INTSS, COTRI, TURGOP, CALR, CLEFMIL, DHCK, FARES, RESS, SELLI, CD35A, INTSS, COTRI, TURGOP, CALR, CLEFMIL, DHCK, FARES, RESS, SELLI, CD35A, SPEDL, PCML, SPA17, SATEMA, ARCD, SCYLI, RESS, RESS, SCHA, STRIGH, CRIS, SPA18, SELLI, CD35A, SPEDL, PCML, SPA19, SPA19, ARDEA, SELLI, CD35A, SPEDL, PCML, SPA19, ARDEA, SPA19, ARDEA
GOTERM	GO:0032924	Activin receptor signaling pathway	2.47	ACVR1, ACVRL1, BMP10, BMPR2, ACVR1B, TGFBR1
GOTERM	GO:0042127	Regulation of cell proliferation	2.41	NGFR, DNMT1, JUND, BMPR2, SRC, PTGER2, HP1BP3, ARX, TNC, XIAP, PDS5B, DBH, CXCL13, GRPR, TNFRSF10D, ACE2, SIX3, BTK, TXNIP, TNFRSF14, DHCR7, PLCD3, JUNB, RELT
GOTERM	GO:0007626	Locomotory behavior	2.36	B4GALT2, SNAP25, MCOLN3, PDE1B, PTEN, CACNA1B, HTR2C, DBH, MECP2, GNAO1, MEIS1, TH, FEZF2, ATP7A
GOTERM	GO:0043066	Negative regulation of apoptotic process	2.31	LTK, RARG, POXES, SRC. GATAS, PTEN, XIAP, NR;E1, ASCL1, CYR61, AURKA, SLC25A27, COMP. IKBKB, MAPK?, NUAK2, MDZ, ARHGDIA, PIM1, FLNA, PIM3, PIM2, TIMD1, NTSR1, HSPASA, NOFR, PIKS, PRELID1, BCL11B, ANGPT1, ANXAS, STAT3, PAFAH2, TNPRSF10D, HIGD2A, SUPVBL1, SON, LHIG, WT1, CLDN?, RARA, BICK, NAA33, TIABMIN, KZN, STAK6, BCL2L1
GOTERM	GO:0030336	Negative regulation of cell migration	2.30	ACVRL1, OSBPL8, BMP10, IFITM1, PTEN, GTPBP4, RHOB, ARHGAP4, SMAD7, NISCH, SFRP2, KRT16, ARHGDIA, DAG1, EPPK1
GOTERM	GO:0005667	Transcription factor complex	2.18	MYOG, HES6, REM14, SMAD4, RARG, FOXE3, JUND, PARP1, SNAI3, SATB2, GATA6, MED27, USF1, SMAD7, SOX2, NHLH2, MEIS1, RBL1, LHX3, ELMSAN1, RCOR3, AJUBA, JUNB, TAF1
GOTERM	GO:0010447	Response to acidic pH	2.16	SRC, ASIC3, GIP, ASIC1, LGMN
GOTERM	GO:0048286	Lung alveolus development	2.14	BMPR2, PKDCC, PDPN, PDGFA, ATP7A, TNS3, FOXP2, STK40
GOTERM	GO:0035264	Multicellular organism growt	2.11	RARG, PKDCC, WDR48, GIGYF2, ADD1, SP2, TNKS2, TBL1XR1, RARA, SLITRK6, DHCR7, UNC79, STK40
GOTERM	GO:0006915	Apoptotic process	2.09	ETIN, EDO PTEN NOCIL, COMP. LOALSI, WDR92, PINI, FAMER, DPF., PINI, PINI, MAPRKS PHELDA, EEFA, DFFR, KEFII, UNCSA, MAGES, MULI, TGFBRI, BRIOS, MEPDIO, EDAR NISCH, PLESCH, SPPD, BRINSI, LINGE, LIB SERGE, SPEIB, BRATI, NATE, MADI, NTNI, CSORFSE, NUAKA, PAKE, RIPKI, RNF130, PLKS, PRELIDI, KCNIPA, MXI, CIDEA, CIDEB, MAPKI4, PAIL, AIMP2, BRE, TNIP2, CLPTMIL, OGT
GOTERM	GO:0007613	Memory Thiomitie-18th protein limas	2.05	B4GALT2, ATAD1, CEBPB, TH, PTEN, DBH, PLA2G6, PTGS2, KCNK2, GIP, ASIC1
GOTERM	GO:0044389	Ubiquitin-like protein ligase binding	2.05	CEBPB, DDRGK1, PTPRN, CDK5RAP3
GOTERM	GO:0043195	Terminal bouton Prostate gland epithelium	2.05	CALCA, OPHNI, TH, SV2A, STXBPI, NMU, VAMPI, AP2MI, NTSRI, GRINI, CNGBI
GOTERM	GO:0060740	morphogenesis Commitment of neuronal cell	2.04	RARG, NOTCH1, TNC, CYP7B1
GOTERM	GO:0021902	to specific neuron type in forebrain	2.04	BCL11B, SATB2, FEZF2, ASCL1
GOTERM	GO:0032609	Interferon-gamma production	2.04	EOMES, AVPR2, LILRB1, IL12RB2
GOTERM	GO:0012501	Programmed cell death	2.04	GSDMC, PKM, TOP1, RNF130
GOTERM	GO:0005581	Collagen trimer Regulation of small GTPase	2.02	EDA, PCOLCE, CIQL3, COL19A1, WDR33, FAM122B, COL2A1, CIQTNFS, CIQTNF7, COL4A3, COL6A6, TIMP1, EMID1, CIQC
GOTERM	GO:0051056	mediated signal transduction	2.01	CDII, ARHGEF17, RHOG, RHOC, ARHGAP36, ARHGAP25, FGD1, RHOB, ARHGAP4, VAV2, ARHGAP31, ARHGEF9, DEPDC7, OPHN1, ARHGAP40, ARHGDIA, RAC2, SRGAP2
KEGG_PATHW AY	hsa04060	interaction	2.43	FNA4, BMPR2, EDA, IFNA6, EPO, CXCR6, CXCL13, ACVR1B, CCL1, TNFRSF14, RELT, IL6R, CCL16, IL12RB2, CCL15, ACVR1, NGFR, CCL24, IL10RB, CD70, OSMR, [TGFBR1, TNFRSF10D, EDAR, IFNG, IL1B, IL3RA, XCL2, IL6R
KEGG_PATHW AY	hsa04750	Inflammatory mediator regulation of TRP channels	1.84	SRC, PTGER2, TRPV3, ITPR2, HTR2C, PLA2G6, MAPK14, PPPICB, ASIC4, IL1B, TRPV4, PRKACA, ASIC3, ASIC1
AY KEGG_PATHW AY	hsa04921	Oxytocin signaling pathway	1.61	SRC, ITPR2, CACNA1D, PTGS2, ELK1, ACTB, GNA12, GNA01, PPP1CB, CACNB3, CACNG8, PPP3CC, MAPK7, CACNG1, PRKACA, MYL9, CACNG4, KCNJ3
AY KEGG_PATHW AY	hsa05020	Prion diseases	1.60	NOTCHI, IL1B, NCAMI, PRKACA, ELKI, CSA, CIQC
KEGG_PATHW AY	hsa04728	Dopaminergic synapse	1.59	GRIAI, CACNAIB, PPP2R5B, ITPR2, CACNAID, COMT, MAPK14, GNAI2, GNAO1, PPP1CB, GNAL, PPP3CC, TH, CREB3L1, PRKACA, KCNI3
KEGG_PATHW AY	hsa04010	MAPK signaling pathway Arrhythmogenic right	1.45	CACNAIB, PDGFA, CACNAID, ELKI, RELB, IKBKB, CACNGB, PPPFCC, MAPKT, MKNK2, RAC2, FLNA, CACNG1, PRKACA, CACNG4, DUSP2, JUND, MAPK14, [GFSR1, CACNG3, MAPKAPK3, TAOK1, ILIB, FGF19, LAMTOR3, FGFR1
KEGG_PATHW AY	hsa05412	ventricular cardiomyopathy (ARVC)	1.45	CACNB3, CACNG8, LMNA, DAG1, ITGA7, CACNA1D, CACNG1, DSC2, CACNG4, ACTB
KEGG_PATHW AY	hsa01230	Biosynthesis of amino acids	1.28	PKN, ACY1, IDH2, PGK1, PGAN4, ALDOC, GPT, ENO1, TKT, GAPDH
KEGG_PATHW AY	hsa04623	Cytosolic DNA-sensing pathway	1.18	IKBKB, IFNA4, IFNA6, POLR3A, IL1B, POLR1D, RIPK1, POLR2H, MB21D1
AY KEGG_PATHW AY	hsa05031	Amphetamine addiction	1.12	GRIAI, PPPICB, ARC, PPP3CC, , CREB3LI, CACNAID, PRKACA, GRINI
AY KEGG_PATHW AY	hsa00010	Glycolysis / Głuconeogenesi	1.09	ALDH3A2, PKM, ALDH1B1, PGK1, PGAM4, ALDOC, ENO1, ACSS1, GAPDH
KEGG_PATHW	hsa05152	Tuberculosis	1.04	HSPA9, PLK3, IFNA4, CEBPB, IFNA6, IL10RB, SRC, NFYC, CARD9, LSP1, MAPK14, FCGR3B, PPP3CC, IFNG, IRAK2, IL1B, ITGAX, HLA-DQA2

Supplementary Figure 3: Full-length blots for Figure 5B

