LabBook 25_03_16

Claire Green

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I completed the intersect analysis using the ensembl IDs and gained some more genes:

Top 1000	Top 2000	Top 3000		Top 4000		Top 5000	
0	0	ENSG00000102898	NUTF2	ENSG00000114857	NKTR	ENSG00000011465	DCN
		ENSG00000145592	RPL37	ENSG00000102898	NUTF2	ENSG00000021300	PLEKHB1
				ENSG00000145592	RPL37	ENSG00000025800	KPNA6
				ENSG00000021300	PLEKHB1	ENSG00000051825	MPHOSPH9
				ENSG00000142864	SERBP1	ENSG00000072110	ACTN1
				ENSG00000117632	STMN1	ENSG00000072121	ZFYVE26
				ENSG00000196628	TCF4	ENSG00000101384	JAG1
				ENSG00000011465	DCN	ENSG00000101439	CST3
						ENSG00000102898	NUTF2
						ENSG00000104695	PPP2CB
						ENSG00000105711	SCN1B
						ENSG00000113140	SPARC
						ENSG00000113575	PPP2CA
						ENSG00000114857	NKTR
						ENSG00000115524	SF3B1
						ENSG00000115685	PPP1R7
						ENSG00000117360	PRPF3
						ENSG00000117632	STMN1
						ENSG00000119950	MXI1
						ENSG00000120948	TARDBP

Top 1000	Top 2000	Top 3000	Top 4000	Top 5000	
				ENSG00000128016	ZFP36
				ENSG00000132549	VPS13B
				ENSG00000135046	ANXA1
				ENSG00000140937	CDH11
				ENSG00000141542	RAB40B
				ENSG00000142864	SERBP1
				ENSG00000143162	CREG1
				ENSG00000143442	POGZ
				ENSG00000145592	RPL37
				ENSG00000146729	GBAS
				ENSG00000152952	PLOD2
				ENSG00000159176	CSRP1
				ENSG00000163629	PTPN13
				ENSG00000167770	OTUB1
				ENSG00000168653	NDUFS5
				ENSG00000171634	BPTF
				ENSG00000177853	ZNF518A
				ENSG00000178695	KCTD12
				ENSG00000182492	BGN
				ENSG00000182899	RPL35A
				ENSG00000188229	TUBB4B
				ENSG00000196628	TCF4
				ENSG00000214413	BBIP1
				ENSG00000253352	TUG1

When combined with the HGNC generated genes, I now have an intersect list of 45 genes at 5000 threshold (red is HGNC, green is new ensemblID). Using random permutation testing, the number of genes selected at 3000, 4000 and 5000 top genes is significantly more than would be expected by chance.

Top 1000	Top 2000	Top 3000	Top 4000	Top 5000
0	0	PFDN1	NKTR	TUG1
		NUTF2	PFDN1	CSRP1
		RPL37	TCF4	PLOD2
			DCN	SPARC
			NUTF2	CST3
			RPL37	TUBB4B
			PLEKHB1	JAG1
			SERBP1	BGN
			STMN1	KCTD12
				NKTR
				ACTN1
				BPTF
				PFDN1
				TARDBP
				PLEKHB1
				SERBP1
				PRPF3
				TCF4
				ZFYVE26
				ZFP36
				KPNA6
				DCN
				SCN1B
				MPHOSPH9
				ZNF518A
				PTPN13
				RAB40B
				PPP1R7
				GBAS
				ANXA1
				NUTF2
				PPP2CB
				PPP2CA
				SF3B1
				STMN1
				MXI1
				VPS13B
				CDH11
				CREG1
				POGZ
				RPL37
				OTUB1
				NDUFS5
				RPL35A
				BBIP1

This is the geneMANIA output. It is clear that there is a high level of coexpression according to current literature.