

Table S1: Details of 72 Common DEGs

S.No.	Gene Name		RA		OA		PG	
	<i>SYMBOL</i>	ENTREZID	P.Value	logFC	P.Value	logFC	P.Value	logFC
1	<i>ABHD5</i>	51099	0.002443	-0.56578	0.020179	-3.10629	0.000509	-0.70691
2	<i>AKAP13</i>	11214	2.15E-06	1.092525	0.01827	2.118771	0.0002	0.924739
3	<i>API5</i>	8539	5.17E-05	0.948967	0.044049	-1.61151	0.003568	-0.83848
4	<i>ATE1</i>	11101	7.50E-05	-0.68299	0.010635	-0.90888	0.002123	-1.01828
5	<i>ATP1B1</i>	481	0.002511	-1.45661	0.027328	3.118706	0.000517	0.776784
6	<i>ATPAF1</i>	64756	0.006199	-0.65636	0.00396	-1.31407	0.002152	-0.89802
7	<i>B4GALT5</i>	9334	0.010165	0.746297	0.040347	2.219408	2.15E-05	1.346279
8	<i>BLOC1S2</i>	282991	1.10E-06	-1.19876	0.017607	-0.66175	0.000387	-0.6478
9	<i>CAB39L</i>	81617	3.15E-07	-1.92443	0.003059	4.237594	0.000456	-1.23121
10	<i>CCDC66</i>	285331	0.001966	-0.64955	0.003516	-3.63235	0.000159	-0.9599
11	<i>CCNG1</i>	900	0.000262	-0.7122	0.008933	-1.613	0.001181	-0.78366
12	<i>CD300A</i>	11314	0.011903	0.69621	0.010745	3.115973	5.86E-05	-0.74556
13	<i>CHST13</i>	166012	2.67E-06	-2.44549	0.034288	0.504662	0.002919	-0.70979
14	<i>CISD1</i>	55847	0.00416	-1.03413	0.031482	-2.78761	0.002289	-0.80914
15	<i>CLIP4</i>	79745	0.002999	-0.64836	0.011162	-3.54783	0.000257	-1.12684
16	<i>DAGLB</i>	221955	0.001786	1.117383	0.006518	1.843946	0.000164	-0.76796
17	<i>DNAAF1</i>	123872	0.006008	1.918584	0.01782	4.193941	2.57E-06	2.29468
18	<i>EHD1</i>	10938	1.31E-05	2.130844	0.041034	-2.59141	4.34E-06	2.083501
19	<i>ERCC1</i>	2067	0.000607	0.919528	0.015691	-2.8963	0.000494	-0.64705
20	<i>ETFA</i>	2108	5.67E-05	-0.62781	0.014883	1.389631	0.002729	-0.52794
21	<i>FBXO28</i>	23219	0.002614	-0.52079	0.008138	0.525873	0.001003	-0.77731
22	<i>FH</i>	2271	0.000411	-0.6469	0.007016	-3.76123	0.001566	-1.09595
23	<i>FMNL1</i>	752	5.56E-08	1.528973	0.026812	-2.89386	3.80E-05	1.036113
24	<i>FSD1L</i>	83856	0.000751	1.108685	0.015012	3.816089	0.001085	1.099068
25	<i>GFM2</i>	84340	0.000152	-1.04212	0.008164	-2.76709	0.000103	-0.89154
26	<i>GGCT</i>	79017	1.70E-05	-0.8628	0.012418	2.605323	0.000214	-0.75831
27	<i>GZF1</i>	64412	0.007052	0.947051	0.001678	-3.57112	0.000761	-1.47368

28	<i>HNMT</i>	3176	1.09E-05	-1.1326	0.007327	-1.42762	0.001013	-0.82189
29	<i>IER3</i>	8870	1.79E-05	1.58268	0.036425	1.61056	8.52E-09	3.691343
30	<i>IL6</i>	3569	0.005851	1.426971	0.04803	-2.54602	1.02E-08	6.170007
31	<i>INTS10</i>	55174	0.012768	-0.81647	0.023895	2.882221	0.000466	-0.83698
32	<i>KBTBD7</i>	84078	2.97E-09	-3.02472	0.041311	1.668666	0.001699	-0.89937
33	<i>KDM7A</i>	80853	2.69E-05	1.081884	0.047432	2.1846	0.002626	0.819238
34	<i>KLHL28</i>	54813	6.93E-05	-0.85664	0.034672	3.240225	8.10E-07	1.468859
35	<i>LRP12</i>	29967	0.007109	-1.14802	0.020469	0.644235	0.000774	1.10113
36	<i>MBLAC2</i>	153364	9.60E-05	-1.51133	0.000336	-3.85063	1.97E-05	-0.92086
37	<i>MBTPS2</i>	51360	0.000197	-0.60447	1.19E-05	-1.72224	0.003269	-0.7793
38	<i>MCEE</i>	84693	7.85E-05	-0.73856	0.02115	0.793102	0.000452	-1.11363
39	<i>METTL25</i>	84190	0.001244	-0.63086	0.037937	0.724949	0.003103	-0.70809
40	<i>MLLT10</i>	8028	0.001097	-0.57958	0.047278	2.742738	4.65E-05	-0.99596
41	<i>MOSPD1</i>	56180	5.56E-09	-1.47123	0.003234	3.405434	0.003576	-0.94579
42	<i>MPP5</i>	64398	3.46E-08	-2.4948	0.030964	2.322848	0.003249	-0.8469
43	<i>MRPL39</i>	54148	0.009186	0.88486	0.035387	2.047736	0.000249	-0.78253
44	<i>MTIF3</i>	219402	0.001492	-0.78276	0.045675	-0.6177	4.02E-05	-1.21492
45	<i>NLRP3</i>	114548	1.57E-07	4.303286	0.016642	-1.11036	2.44E-05	2.918478
46	<i>PMEPA1</i>	56937	0.000682	1.412264	0.041631	-2.23103	0.000562	0.656428
47	<i>PNKD</i>	25953	1.72E-05	-1.16772	0.006833	-0.73991	0.000426	-0.82808
48	<i>PNRC1</i>	10957	0.007087	0.597413	0.041306	1.757568	1.50E-06	1.880961
49	<i>PPP1R18</i>	170954	0.001211	0.597533	0.047425	1.476029	7.71E-06	1.106381
50	<i>PSTPIP1</i>	9051	1.46E-06	1.878514	0.045162	1.495317	0.000169	-0.81923
51	<i>RCBTB2</i>	1102	0.000346	-0.78763	0.048169	1.972613	0.001071	-1.38603
52	<i>RFK</i>	55312	5.99E-05	1.03999	0.018353	2.625587	0.001629	-0.76247
53	<i>RGS16</i>	6004	0.005979	1.14111	0.022101	2.358466	7.23E-06	1.065291
54	<i>RHNO1</i>	83695	0.000957	-0.59207	0.030542	2.126232	0.001321	-1.00823
55	<i>RIN2</i>	54453	7.06E-05	3.051098	0.042093	-1.46963	0.000764	-1.55874
56	<i>RPAP3</i>	79657	0.002535	-0.53975	0.011583	-0.78553	0.000388	-1.59776
57	<i>RPGR</i>	6103	0.002118	0.651429	0.043931	2.703224	0.00043	0.72406
58	<i>RPUSD3</i>	285367	4.03E-05	-1.10226	0.046301	-0.58511	0.000135	-1.08247

59	<i>SAMHD1</i>	25939	0.000158	0.653058	0.016753	-3.903	0.003645	-1.28668
60	<i>SAR1B</i>	51128	1.06E-05	-0.73891	0.000472	0.842645	0.000388	-0.78643
61	<i>SLC1A2</i>	6506	0.011151	1.88593	0.022717	-1.38018	9.13E-07	2.859791
62	<i>SLC20A1</i>	6574	0.000207	0.571868	0.013494	-1.41614	0.001468	-0.77487
63	<i>SQSTM1</i>	8878	2.40E-06	-1.3107	0.030014	-2.45249	0.002504	0.90745
64	<i>SYNRG</i>	11276	0.004741	-0.59859	0.007395	-2.74597	0.000155	-0.76539
65	<i>TAPBP</i>	6892	3.92E-05	0.913076	0.030057	2.118014	0.000712	0.909168
66	<i>TBC1D12</i>	23232	0.001189	-0.73789	0.003551	0.655343	0.001446	0.546048
67	<i>THEM4</i>	117145	0.000146	0.778283	0.039497	2.014082	0.00089	-0.7336
68	<i>TMCC1</i>	23023	1.23E-07	-1.21068	6.16E-06	5.415481	0.0004	-1.14181
69	<i>TMED8</i>	283578	2.75E-05	-0.8267	0.021837	2.55728	0.003496	-0.83207
70	<i>TMEM263</i>	90488	0.000919	-0.73695	0.034029	-1.29565	0.003673	-0.90391
71	<i>TNF</i>	7124	2.39E-06	2.421162	0.011977	-3.41913	5.54E-08	5.240661
72	<i>TRAF3</i>	7187	3.54E-06	-1.18885	0.03868	-0.81485	0.001364	0.6176

Table S2: GeneMANIA Output for Protein-Protein interaction network

Gene name	Nod e type	Name	Synonym	Log score	Score	RefSeq mRNA ID	RefSeq Protein ID	Uniprot ID	Ensembl Gene ID	Ensembl Protein ID	Entre z Gene ID
RPAP3	query	H__sapiens__4_-701058	spag	-0.31775	0.727781	NM_024604	NP_078880	Q9H6T3	ENSG000000005175	ENSP00000401823	79657
ABHD5	query	H__sapiens__4_-701259	NCIE2	-0.26487	0.767309	NM_016006	NP_057090	Q8WTS1	ENSG000000011198	ENSP00000412014	51099
MBTPS2	query	H__sapiens__4_-701288	S2P	-0.26912	0.764052	NM_015884	NP_056968	O43462	ENSG000000012174	ENSP00000368798	51360
TXNL1	result	H__sapiens__4_-702896	TXNL	-4.30402	0.013514	NM_004786	NP_004777	O43396	ENSG000000091164	ENSP00000468165	9352

FH	query	H__sapiens__4_-702904	fumarase	-0.45588	0.633892	NM_000143	NP_000134	P07954	ENSG000000091483	ENSP00000355518	2271
PSMD10	result	H__sapiens__4_-703554		-3.96941	0.018885	NM_170750	NP_736606	O75832	ENSG00000101843	ENSP00000361370	5716
CAB39L	query	H__sapiens__4_-703662	MO2L	-0.1529	0.858213	NM_030925	NP_112187	Q9H9S4	ENSG00000102547	ENSP00000479669	81617
NUBP1	result	H__sapiens__4_-703774	NBP35	-4.28925	0.013715	NM_002484	NP_002475	P53384	ENSG00000103274	ENSP00000461746	4682
ATE1	query	H__sapiens__4_-704415		-0.1426	0.867104	NM_007041	NP_008972	O95260	ENSG00000107669	ENSP00000444852	11101
XPNPEP1	result	H__sapiens__4_-704464	XPNPEP L1	-4.39697	0.012315	NM_020383	NP_065116	Q9NQW7	ENSG00000108039	ENSP00000421566	7511
TBC1D12	query	H__sapiens__4_-704479	KIAA0608	-0.21905	0.803279	NM_015188	NP_056003	O60347	ENSG00000108239	ENSP00000225235	23232
DRG2	result	H__sapiens__4_-704537		-3.50461	0.030058	NM_001388	NP_001379	P55039	ENSG00000108591	ENSP00000464244	1819
EHD1	query	H__sapiens__4_-704713	PAST1	-0.41375	0.661163	NM_006795	NP_006786	Q9H4M9	ENSG00000110047	ENSP00000479153	10938
PPP6R3	result	H__sapiens__4_-704720	SAPS3	-3.79507	0.022481	NM_018312	NP_060782	Q5H9R7	ENSG00000110075	ENSP00000437329	55291
PANX1	result	H__sapiens__4_-704737	UNQ2529	-4.4176	0.012063	NM_015368	NP_056183	Q96RD7	ENSG00000110218	ENSP00000411461	24145
TAPBP	query	H__sapiens__4_-705052	TAPA	-0.26741	0.765358	NM_172209	NP_757346	O15533	ENSG00000236490	ENSP00000450358	6892
CCNG1	query	H__sapiens__4_-705154	CCNG	-0.39533	0.673455	NM_199246	NP_954854	P51959	ENSG00000113328	ENSP00000427086	900

CLIP4	query	H__sapiens__4_-705386	RSNL2	-0.22142	0.80138	NM_024692	NP_078968	Q8N3C7	ENSG00000115295	ENSP00000414417	79745
MTIF3	query	H__sapiens__4_-706211	IF3(mt)	-0.10382	0.901384	NM_152912	NP_690876	Q9H2K0	ENSG00000122033	ENSP00000384659	219402
CISD1	query	H__sapiens__4_-706306	ZCD1	-0.26017	0.770921	NM_018464	NP_060934	Q9NZ45	ENSG00000122873	ENSP00000363041	55847
ATPAF1	query	H__sapiens__4_-706375	FLJ22351	-0.14798	0.862448	NM_022745	NP_073582	Q5TC12	ENSG00000123472	ENSP00000460964	64756
PMEPA1	query	H__sapiens__4_-706474	TMEPAI	-0.21324	0.807959	NM_199171	NP_954640	Q969W9	ENSG00000124225	ENSP00000401506	56937
MTRR	result	H__sapiens__4_-706488	cblE	-4.44617	0.011723	NM_024010	NP_076915	Q9UBK8	ENSG00000124275	ENSP00000427416	4552
GTF3C4	result	H__sapiens__4_-706642	TFIIIC90	-4.43788	0.011821	NM_012204	NP_036336	Q9UKN8	ENSG00000125484	ENSP00000431378	9329
KTN1	result	H__sapiens__4_-706837	KNT	-4.23298	0.014509	NM_004986	NP_004977	Q86UP2	ENSG00000126777	ENSP00000452576	3895
METTL25	query	H__sapiens__4_-706931	FLJ22789	-0.11605	0.890429	NM_032230	NP_115606	Q8N6Q8	ENSG00000127720	ENSP00000450317	84190
ATP6V1E1	result	H__sapiens__4_-707388	ATP6V1E	-4.21286	0.014804	NM_001696	NP_001687	P36543	ENSG00000131100	ENSP00000398932	529
RIN2	query	H__sapiens__4_-707618		-0.23488	0.790665	NM_018993	NP_061866	Q8WYP3	ENSG00000132669	ENSP00000391239	54453
FLNB	result	H__sapiens__4_-708196	TABP	-3.99978	0.01832	NM_001457	NP_001448	O75369	ENSG00000136068	ENSP00000420213	2317
IER3	query	H__sapiens__4_-708443	IEEX-1L	-0.36221	0.696133	NM_003897	NP_003888	P46695	ENSG00000237155	ENSP00000412861	8870

PSTPIP1	query	H__sapiens__4_-708945	PSTPIP	-0.4135	0.661331	NM_003978	NP_003969	O43586	ENSG00000140368	ENSP00000454127	9051
TPM1	result	H__sapiens__4_-708957	CMH3	-4.0786	0.016931	NM_001301289	NP_001288218	P09493	ENSG00000140416	ENSP00000477929	7168
ATP1B1	query	H__sapiens__4_-709316	ATP1B	-0.28269	0.753752	NM_001677	NP_001668	P05026	ENSG00000143153	ENSP00000477015	481
RGS16	query	H__sapiens__4_-709359	RGS-r	-0.24755	0.780714	NM_002928	NP_002919	O15492	ENSG00000143333	ENSP00000356529	6004
SLC20A1	query	H__sapiens__4_-709520	PiT-1	-0.29409	0.745208	NM_005415	NP_005406	Q8WUM9	ENSG00000144136	ENSP00000413393	6574
PNRC1	query	H__sapiens__4_-709821	PROL2	-0.35814	0.698979	NM_006813	NP_006804	Q12796	ENSG00000146278	ENSP00000358484	10957
HNMT	query	H__sapiens__4_-710303		-0.25528	0.774702	NM_006895	NP_008826	P50135	ENSG00000150540	ENSP00000419415	3176
BAG3	result	H__sapiens__4_-710472		-3.66564	0.025588	NM_004281	NP_004272	O95817	ENSG00000151929	ENSP00000410036	9531
SAR1B	query	H__sapiens__4_-710569	SARA2	-0.34448	0.708589	NM_016103	NP_057187	Q9Y6B6	ENSG00000152700	ENSP00000426335	51128
SQSTM1	query	H__sapiens__4_-711566	PDB3	-0.40068	0.669861	NM_003900	NP_003891	Q13501	ENSG00000161011	ENSP00000487071	8878
NLRP3	query	H__sapiens__4_-711803	PYPAF1	-0.3204	0.725859	NM_183395	NP_899632	Q96P20	ENSG00000162711	ENSP00000375704	114548
PGGT1B	result	H__sapiens__4_-712287	GGTI	-4.19668	0.015045	NM_005023	NP_005014	P53609	ENSG00000164219	ENSP00000404676	5229
API5	query	H__sapiens__4_-712781	API5L1	-0.38803	0.678392	NM_006595	NP_006586	Q9BZZ5	ENSG00000166181	ENSP00000436436	8539

STAT6	resu lt	H__sapiens__ 4_-712964	IL-4- STAT	- 3.665 51	0.0255 91	NM_003153	NP_003144	P42226	ENSG00000166 888	ENSP00000452 394	6778
AKAP13	quer y	H__sapiens__ 4_-713896	PROTO- LB	- 0.226 62	0.7972 22	NM_007200	NP_009131	Q12802	ENSG00000170 776	ENSP00000483 091	11214
RHNO1	quer y	H__sapiens__ 4_-714145	RHINO	- 0.145 04	0.8649 84	NM_001257 098	NP_001244 027	Q9BSD 3	ENSG00000171 792	ENSP00000479 598	83695
OXSR1	resu lt	H__sapiens__ 4_-714418	KIAA110 1	- 4.284 76	0.0137 77	NM_005109	NP_005100	O95747	ENSG00000172 939	ENSP00000415 851	9943
FMNL1	quer y	H__sapiens__ 4_-716857	FMNL	- 0.316 64	0.7285 95	NM_005892	NP_005883	O95466	ENSG00000184 922	ENSP00000468 301	752
BLOC1S 2	quer y	H__sapiens__ 4_-717993	MGC101 20	- 0.180 41	0.8349 31	NM_173809	NP_776170	Q6QNY 1	ENSG00000196 072	ENSP00000484 340	28299 1
PSMD12	resu lt	H__sapiens__ 4_-718364	Rpn5	- 4.308 02	0.0134 6	NM_174871	NP_777360	O00232	ENSG00000197 170	ENSP00000463 017	5718
STK39	resu lt	H__sapiens__ 4_-718830	SPAK	- 3.735 6	0.0238 59	NM_013233	NP_037365	Q9UEW 8	ENSG00000198 648	ENSP00000348 278	27347
TXNIP	resu lt	H__sapiens__ 4_-751999	VDUP1	- 4.365 64	0.0127 07	NM_006472	NP_006463	Q9H3M 7	ENSG00000265 972	ENSP00000462 521	10628
SYNRG	quer y	H__sapiens__ 4_-756501	SYNG	- 0.204 44	0.8151 06	NM_198882	NP_942583	Q9UMZ 2	ENSG00000275 066	ENSP00000488 863	11276