Supplemental Table 3. Most significantly enriched up-regulated pathways.

Ingenuity Canonical Pathways	FDR	Ratio	z-score	Molecules
Granulocyte Adhesion and Diapedesis	1.26E-22	0.32	NaN	SELL, MMP3, CCL17, MMP13, IL1R2, CXCL10, IL1RL2, CXCL14, Cxcl3, Ccl6, TNFRSF11B, ITGA4, CSF3R, SELE, PF4, THY1, FPR1, IL33, IL18, ITGAM, IL1RN, ITGA1, TNF, MMP14, CCL22, SDC3, CCL5, MMP25, IL36G, CCL2, CCL3L3, Ccl8, CXCR2, Ccl2, TNFRSF1B, MMP19, VCAM1, C5AR1, CXCR4, ITGA2, FPR2, CKLF, GNAI1, ITGAL, CXCL6, Ccl9, SELPLG, IL18RAP, CXCL16, ITGB2, CCL27, CCL21, IL1B, CXCL2, MMP9, CLDN22, Ccl7
Agranulocyte Adhesion and Diapedesis	7.94E-16	0.27	NaN	MYH10, SELL, MMP3, CCL17, MMP13, CXCL10, CXCL14, ACTG2, Cxcl3, Ccl6, ITGA4, SELE, PF4, IL33, IL18, IL1RN, ITGA1, TNF, AOC3, MMP14, CCL22, CCL5, MYH11, MMP25, ITGB7, IL36G, CCL2, Ccl8, CXCR2, CCL3L3, Ccl2, MMP19, VCAM1, C5AR1, CXCR4, ITGA2, GNAI1, CKLF, CXCL6, SELPLG, Ccl9, CXCL16, ITGB2, CCL27, CCL21, IL1B, CXCL2, CLDN22, MMP9, Ccl7
Role of Pattern Recognition Receptors in Recognition of Bacteria and Viruses	6.31E-15	0.31	5	PIK3R5, TLR8, C1QC, C1QA, C1QB, CCL5, IL6, RNASEL, IL17B, IFIH1, TGFB1, PIK3CG, TLR1, CASP1, TLR7, OSM, CLEC6A, PTX3, OAS1, C5AR1, NLRP3, OAS2, MYD88, OAS3, TLR9, TLR2, IRF7, CLEC7A, IL18, TLR5, SYK, PLCG2, TLR6, TGFB3, IL1B, PIK3CD, TNF, C3AR1, PRKCB

Dendritic Cell Maturation	1.00E-13	0.25	5.284	PLCB2, LEPR, NFKBIE, HLA-DQA1, PIK3R5, HLA-DQB1, IL6, FCGR2B, FCGR1A, MAPK11, IL36G, IL1RL2, HLA-DMA, PIK3CG, HLA-DMB, LY75, PLCL1, STAT1, TNFRSF1B, FCGR3A/FCGR3B, TNFRSF11B, TYROBP, FCGR2A, MYD88, PLCL2, TLR9, TLR2, STAT4, IL33, PLCB4, IL18, CD80, IL1RN, PLCG2, FSCN1, TREM2, FCER1G, CD86, IL1B, STAT2, PIK3CD, IRF8, TNF, CCR7, HLA-DRB5
Leukocyte Extravasation Signaling	1.58E-12	0.23	3.569	RAC2, MMP3, MMP14, CTNNA3, PIK3R5, MMP13, MMP25, RHOH, MAPK11, TIMP1, PIK3CG, CYBA, CYBB, ACTG2, MMP19, ITGA4, VCAM1, CXCR4, ACTN2, ITGA2, GNAI1, ARHGAP4, THY1, BMX, NCF4, ITGAL, SELPLG, TEC, ROCK1, BTK, ITGB2, TIMP4, NCF1, ITGAM, ARHGAP9, WAS, PLCG2, RASGRP1, NCF2, CD44, ITGA1, VAV1, PIK3CD, CLDN22, MMP9, PRKCB
Role of Macrophages, Fibroblasts and Endothelial Cells in Rheumatoid Arthritis	1.58E-12	0.20	NaN	SOCS3, PLCB2, MMP3, TLR8, MMP13, IL6, FCGR1A, MYC, IL1R2, WIF1, IL1RL2, TGFB1, PIK3CG, TLR1, OSM, PLCL1, TNFRSF11B, ADAMTS4, SELE, MIF, IL6R, PLCL2, TLR9, TLR2, IL33, IL18, IL1RN, PLCG2, PIK3CD, PDGFD, TNF, NFKBIE, PIK3R5, CCL5, IL17RA, PGF, IL36G, CCL2, TLR7, NOS2, TNFRSF1B, FCGR3A/FCGR3B, VCAM1, C5AR1, MYD88, CEBPB, TCF7L1, IL18RAP, ROCK1, FZD8, PLCB4, TLR5, TLR6, Tlr13, IL1B, SOST, PRKCB, WNT5A
phagosome formation	1.00E-11	0.29	NaN	MRC1, PLCB2, MSR1, PIK3R5, TLR8, FCGR2B, FCGR1A, RHOH, RHOG, PIK3CG, TLR1, TLR7,

				PLCL1, FCGR3A/FCGR3B, ITGA4, FCGR2A, ITGA2, PLCL2, TLR9, INPP5D, TLR2, PLCB4, CLEC7A, Fcrls, TLR5, SYK, PLCG2, TLR6, FCER1G, Tlr13, PIK3CD, PRKCB
IL-10 Signaling	1.23E-10	0.35	NaN	CCR1, SOCS3, CCR5, IL4R, FCGR2A, NFKBIE, ARG2, IL6, FCGR2B, MAPK11, IL18RAP, IL1R2, IL33, HMOX1, IL36G, IL18, IL1RL2, IL1RN, IL10RA, IL10RB, CD14, IL1B, LBP, TNF
TREM1 Signaling	1.66E-10	0.33	5	Naip1 (includes others), TREM1, NLRP3, TYROBP, MYD88, TLR8, LAT2, IL6, TLR9, FCGR2B, TLR2, NLRC5, IL18, TLR5, CCL2, PLCG2, TLR6, TLR1, CASP1, TLR7, IL1B, CD86, Tlr13, TNF, ITGAX
Hepatic Fibrosis / Hepatic Stellate Cell Activation	2.95E-10	0.22	NaN	MYH10, CCR5, COL4A5, LEPR, COL4A3, MMP13, COL8A1, MYH11, CCL5, IL6, COL6A6, PGF, IL1R2, IL1RL2, CCL2, TIMP1, TGFB1, HGF, LBP, STAT1, TNFRSF1B, TNFRSF11B, VCAM1, IL4R, EDNRB, COL12A1, IL6R, FGFR2, IL18RAP, CCL21, IL10RA, IGFBP3, TGFB3, CD14, IL1B, COL4A4, PDGFD, TNF, MMP9, CCR7

Ingenuity analysis of RNAs up-regulated greater than or equal to 2-fold. The ratio indicates the proportion of genes in the pathway whose expression was altered. The z-score indicates the relative activation (positive numbers) or repression (negative numbers) of the pathway. NaN –not able to be determined.