

S5 Table. Canonical pathways differentially regulated in HCT116^{PARP1-/-} cells relative to HCT116^{EV} cells (IPA)

Canonical pathway	Genes
Atherosclerosis Signaling	<i>ALB, ALOX12, APOL1, CCR3, CD36, IL8, IL18, IL1A, IL1RN, IL36G, IL36RN, ITGA4, ITGB2, LYZ, MMP1, MMP13, ORM2, PDGFB, PLA2G4D, PLA2G4E, PLB1, SELPLG, SERPINA1</i>
Complement System	<i>C3, CD59, CFB, CFH, CFI, ITGAX, ITGB2, MASP1</i>
Coagulation System	<i>BDKRB1, BDKRB2, FGG, KLKB1, PLAU, SERPINA1, SERPINA5, SERPINF2</i>
Granulocyte Adhesion & Diapedesis	<i>CCL20, CCL26, CLDN1, CLDN4, CLDN9, CXCL1, CXCL3, IL8, IL18, IL1A, IL1R2, IL1RN, IL36G, IL36RN, ITGA3, ITGA4, ITGB1, ITGB2, MMP1, MMP13, SDC4, SELL, SELPLG</i>
Agranulocyte Adhesion & Diapedesis	<i>ACTA2, ACTG2, CCL20, CCL26, CLDN1, CLDN4, CLDN9, CXCL1, CXCL3, IL8, CXCR1, FNI, IL18, IL1A, IL1RN, IL36G, ITGA3, ITGA4, ITGB1, ITGB2, ITGB7, MMP1, MMP13, MMP28, SDC4, SELL, SELPLG</i>
Communication between Innate and Adaptive Immune Cells	<i>CCR7, CSF2, IL8, IL18, IL1A, IL1RN, IL36G, TLR3, TLR7, TLR10, TNFSF13B</i>
Role of Pattern Recognition Receptors in Recognition of Bacteria and Viruses	<i>C3, CLEC7A, CSF2, IL8, DDX58, IFIH1, IL18, IL1A, IRF7, LIF, OAS1, OAS2, OSM, SYK, TLR3, TLR7</i>
Hepatic Stellate Cell Activation	<i>ACTA2, CCR7, COL16A1, COL17A1, COL24A1, COL27A1, COL4A5, COL5A1, COL6A1, COL9A3, CXCL3, IL8, CXCR3, EDN1, EGF, FAS, FLT1, FLT4, FNI, IGFBP5, IL1A, IL1R2, LAMA1, MET, MMP1, MMP13, PDGFB, TGFA</i>
NF-κB signaling	<i>AKT3, BMPR1B, CARD11, EGF, FLT1, FLT4, IL18, IL1A, IL1R2, IL1RN, IL36G, IL36RN, NTRK2, TANK, TGFA, TLR3, TLR7, TLR10, TNFSF13B</i>
LXR/RXR Activation	<i>ALB, APOL1, C3, CD36, IL18, IL1A, IL1R2, IL1RN, IL36G, IL36RN, LYZ, NOS2, ORM2, PON3, SERPINA1, SERPINF2, TLR3</i>
Acute Phase Response Signaling	<i>AKT3, ALB, C3, CFB, FGG, FNI, HRG, IL18, IL1A, IL1RN, IL36G, IL36RN, ITIH2, KLKB1, NR3C1, ORM2, OSM, RBP3, SERPINA1, SERPINA3, SERPINF2</i>
FXR/RXR Activation	<i>AKT3, ALB, APOL1, C3, CYP19A1, FBP1, FGF19, IL18, IL1A, IL1RN, IL36G, IL36RN, ORM2, PON3, SERPINA1, SERPIF2, SLCO1B1</i>
Role of Macrophages, Fibroblasts and Endothelial Cells in Rheumatoid Arthritis	<i>ADAMTS4, AKT3, CAMK4, CAMK2B, CCND1, CSF2, CXCL8, FNI, IL7, IL18, IL1A, ILR2, IL1RN, IL36G, IL36RN, MMP1, MMP13, NOS2, OSM, PDGFB, PPP3R2, TLR3, TLR7, TLR10, TNFSF13B, TRAF4, WNT11, WNT7A, WNT7B, WNT9A</i>
LPS/IL-1 Mediated Inhibition of RXR Function	<i>ABCC3, ALDH1A3, ALDH3A1, ALDH3B2, CHST4, CHST10, CHST13, CYP3A7, FMO1, FMO5, GSTA1, GSTA2, IL18, IL1A, IL1R2, IL1RN, IL36G, IL36RN, MGST2, NDST3, PAPSS2, SLCO1A2, SULT1E1</i>
Crosstalk between Dendritic Cells and Natural Killer Cells	<i>ACTA2, ACTG2, CAMK2B, CCR7, CSF2, FAS, FSCN2, IL18, IL2RB, TLR3, TLR7, TNFSF10</i>
Role of Osteoblasts, Osteoclasts and Chondrocytes in Rheumatoid Arthritis	<i>ADAMTS4, AKT3, BIRC3, CAMK4, CSF2, IL7, IL18, IL1A, IL1R2, IL1RN, IL36G, IL36RN, ITGA3, ITGB1, MMP1, MMP13, PPP3R2, RUNX2, SMAD6, WNT11, WNT7A, WNT7B, WNT9A</i>
TREM1 Signaling	<i>AKT3, CIITA, CSF2, CXCL3, CXCL8, IL18, ITGAX, ITGB1, NLRP6, STAT5A, TL3, TLR7, TLR10</i>
Caveolar-mediated Endocytosis Signaling	<i>ACTA2, ACTG2, ALB, EGF, ITGA3, ITGA4, ITGA9, ITGAX, ITGB1, ITGB2, ITGB4, ITGB6, ITGB7</i>
Altered T and B Cell Signaling in Rheumatoid Arthritis	<i>CSF2, FAS, HLA-DOB, IL18, IL1A, IL1RN, IL23A, IL36G, IL36RN, TLR3, TLR7, TLR10, TNFSF13B</i>
VDR/RXR Activation	<i>CDKN1A, CSF2, IGFBP5, IGFBP6, KLF4, KLF6, RUNX2, SEMA3B, SERPINB1, TRPV6</i>
PI3K Signaling in B Lymphocytes	<i>AKT3, BLNK, C3, CAMK4, CAMK2B, DAPPI, INPP5D, IRS4, PIK3API, PLEKHA2, PPP3R2, SYK</i>