**Table S2.** **Biological Functions in Differentially Methylated Genes in AECs Compared to PBMCs.**

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| **Category** | **Genes** |
| Cell-To-Cell Signaling and Interaction | PPARG, CTGF, ICAM1, CXCL9, CD2, IL10, APOA1, S100A4, PSCA, NOS3, SPI1, DDR1, FGF1, TNFSF8, LTB4R, IL2, LTA, LAT, CD86, OSM, PECAM1, SERPINB5, CD34 |
| Cell Death | PPARG, RUNX3, ICAM1, CD2, IL10, DLC1, SPI1, TNFSF8, RIPK1, IL2, LTA, ERCC3, TGFB3, OSM |
| Cellular Movement | CTGF, ICAM1, GLI2, CD2, APOA1, S100A4, RARRES1, NOS3, SPDEF, SPI1, LTB4R, IL2, RARA, OSM, SERPINB5, PLAT, PPARG, RUNX3, CXCL9, NBL1, IL10, ACVR1, TRIP6, SNCG, DLC1, S100A2, DDR1, TIE1, FGF1, MET, LTA, TGFB3, PTK6, CD86, PECAM1, MST1R, TBX1, CD34 |
| Antigen Presentation | RUNX3, CXCL9, ICAM1, CD2, IL2, APOA1, IL10, CD86, SPI1 |
| Cellular Compromise | CD2,IL2,S100A4,CD86 |
| Cellular Development | PPARG, RUNX3, ICAM1, CD2, APOA1, IL10, LMO2, SPI1, DDR1, FGF1, TNFSF8, MET, MPL, IL2, LTA, RARA, LAT, HOXA5, OSM, PECAM1, CD86 |
| Cellular Growth and Proliferation | PPARG, LTB4R, ICAM1, CD2, IL2, IL10, LTA, RARA, OSM, CD86, SPI1 |
| Gene Expression | PPARG, RUNX3, GLI2, CD2, IL10, LMO2, SPDEF, SPI1, FGF1, TNFSF8, MET, RIPK1, IL2, ERCC3, RARA, HOXA5, TGFB3, OSM, TRIM29, TBX1 |
| Protein Synthesis | PPARG, APOA1, IL10, IL2, LTA, CD86, SFN, NOS3, SPI1 |
| Carbohydrate Metabolism | IL2, IL10, APOA1, OSM, FGF1 |
| Cell Morphology | MPL, CD2, IL2, IL10, LAT, CD86, GP1BB, SPI1 |
| Cellular Function and Maintenance | PPARG, ICAM1, IL10, IL2, LMO2, LAT, CD86, SPI1 |
| Molecular Transport | APOA1, IL10, NOS3, MC2R |
| Cell Signaling | ICAM1, IL10, RARA, NOS3, TBX1 |
| Small Molecule Biochemistry | ICAM1, IL2, IL10, OSM, NOS3, CD34, FGF1 |
| Amino Acid Metabolism | NOS3, CD34 |
| Cell Cycle | PPARG, PADI4 |
| Cellular Assembly and Organization | CD2, IL10, LAT, CD86, MST1R |
| DNA Replication, Recombination and Repair | IL10, MST1R |