Supplementary Material

Nicotinamide mononucleotide (NMN) alleviates the poly(I:C)-induced inflammatory response in human primary cell cultures

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Supplementary Information 1.

List of top 20 genes up-regulated by high-NMN in poly(I:C)-induced HPMEC.

List of top 20 genes down-regulated by high-NMN in poly(I:C)-induced HPMEC.

List of top 20 genes down-regulated by high-NMN in poly(I:C)-induced HCAEC.

List of top 20 genes up-regulated by high-NMN in poly(I:C)-induced HCAEC.

Supplementary Information 2.

Gene Ontology pathways enriched in up- and downregulated genes of HPMEC and HCAEC.

Supplementary Information 3.

Module-trait relationships (WGCNA p-values) in HPMEC.

Module-trait relationships (WGCNA p-values) in HCAEC.

Gene Ontology pathways overrepresented in the p-sienna3, p-green, c-magenta, c-purple modules. These are the full lists of which only excerpts are shown in Figure 2 E, F.

Supplementary Information 4.

Gene Ontology pathways overrepresented in the p-purple, c-yellow modules. These are the full lists of which only excerpts are shown in Figure 3 C, D.

Supplementary Information 5.

Gene Ontology pathways overrepresented in the p-lightgreen, c-brown modules. These are the full lists of which only excerpts are shown in Supplementary Figure 4.

Supplementary Information 6.

Gene Ontology pathways overrepresented in the p-darkred, c-black modules. These are the full lists of which only excerpts are shown in Figure 5 A, B.
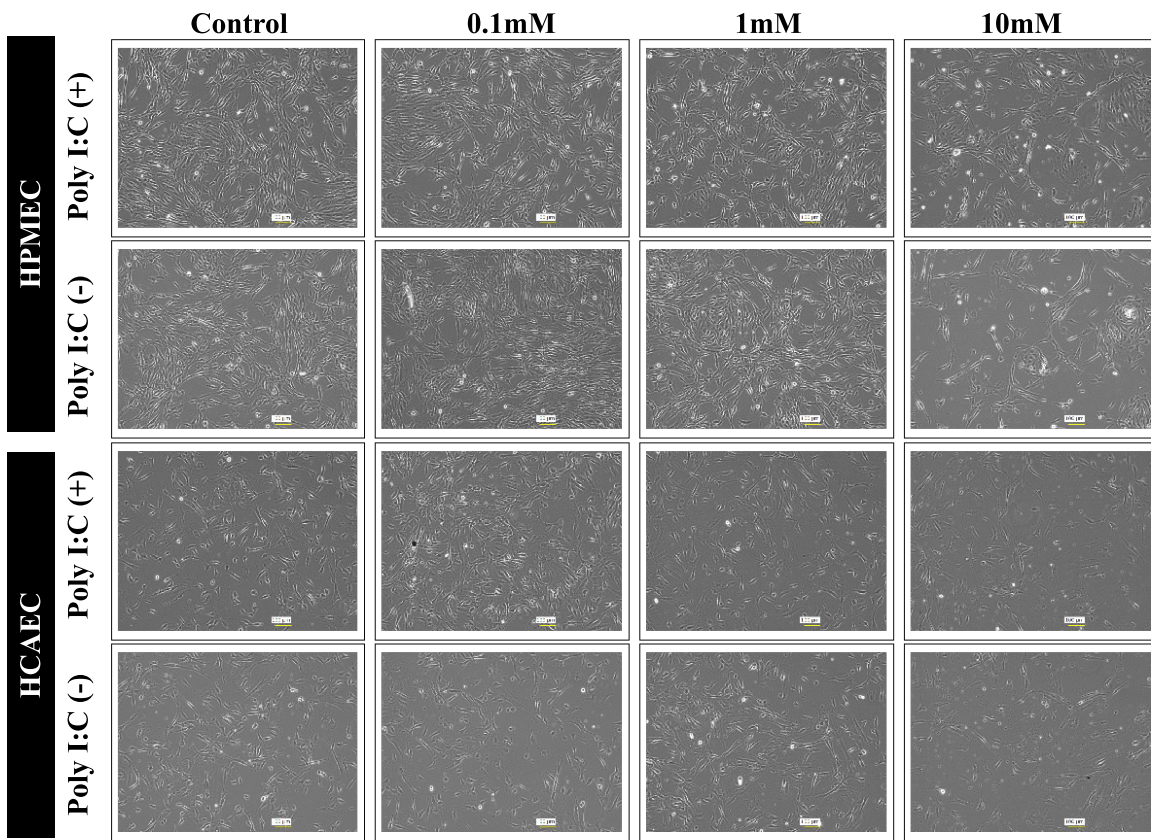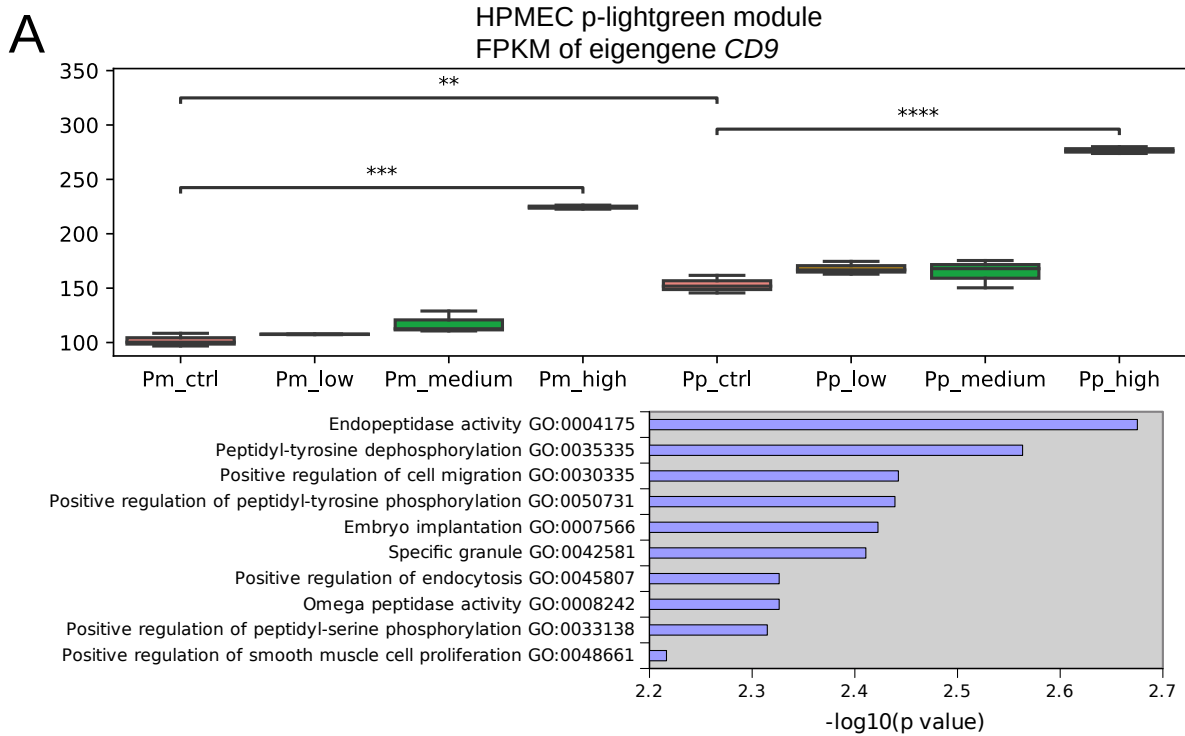
Supplementary Figure 1: Images of representative cells from each condition at the time of RNA isolation. Yellow bar 100 μm.
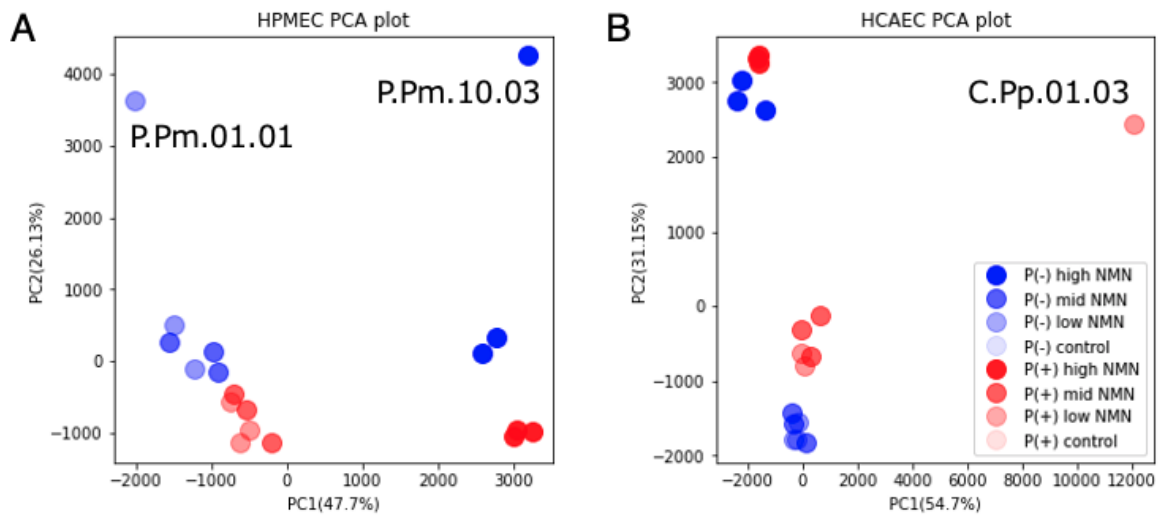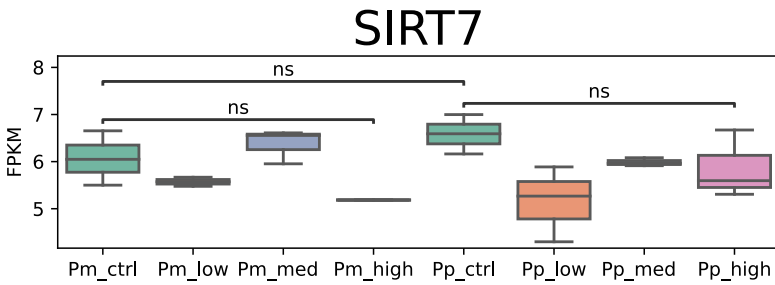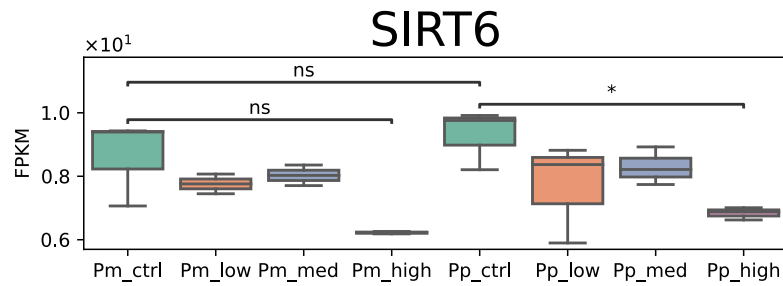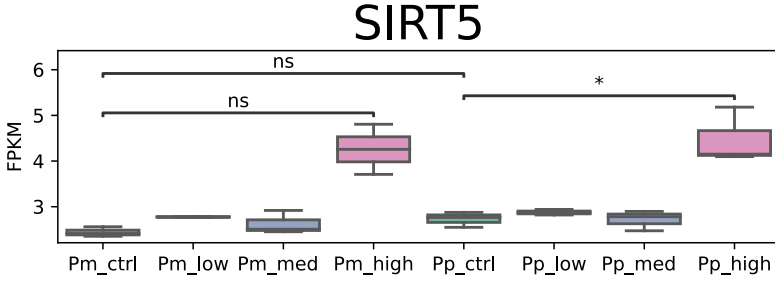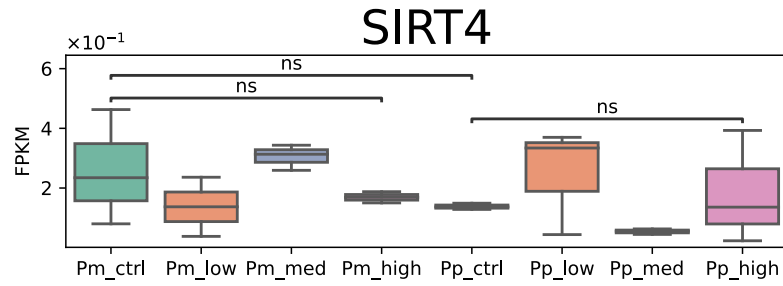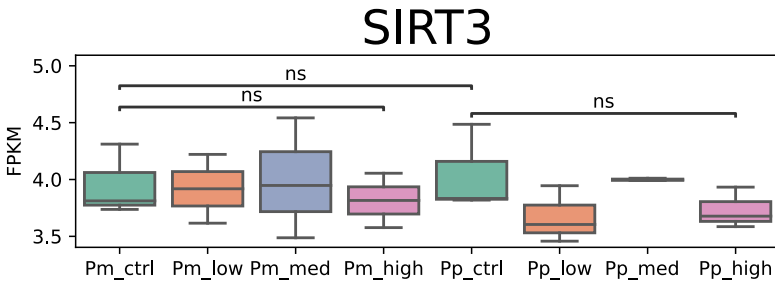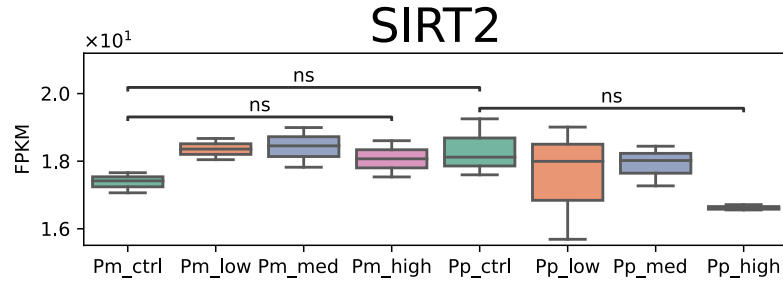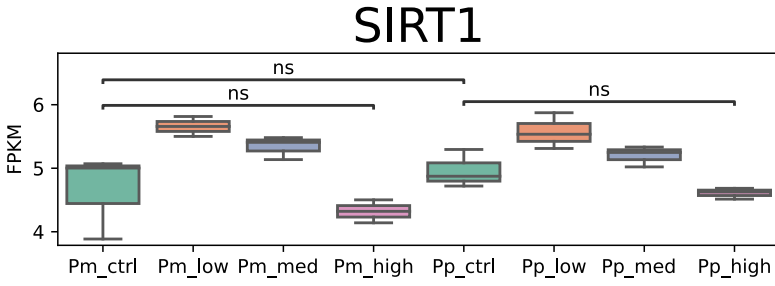
Supplementary Figure 2: PCA plot for FPKM transcriptome data with poly(I:C) (2.5μg/mL) induction (red) and without poly(I:C) induction (blue) in HPMEC (A) and HCAEC (B). Pp: Poly(I:C)+. Pm: Poly(I:C)-. low: 0.1 mM, mid: 1.0 mM, high: 10 mM NMN.
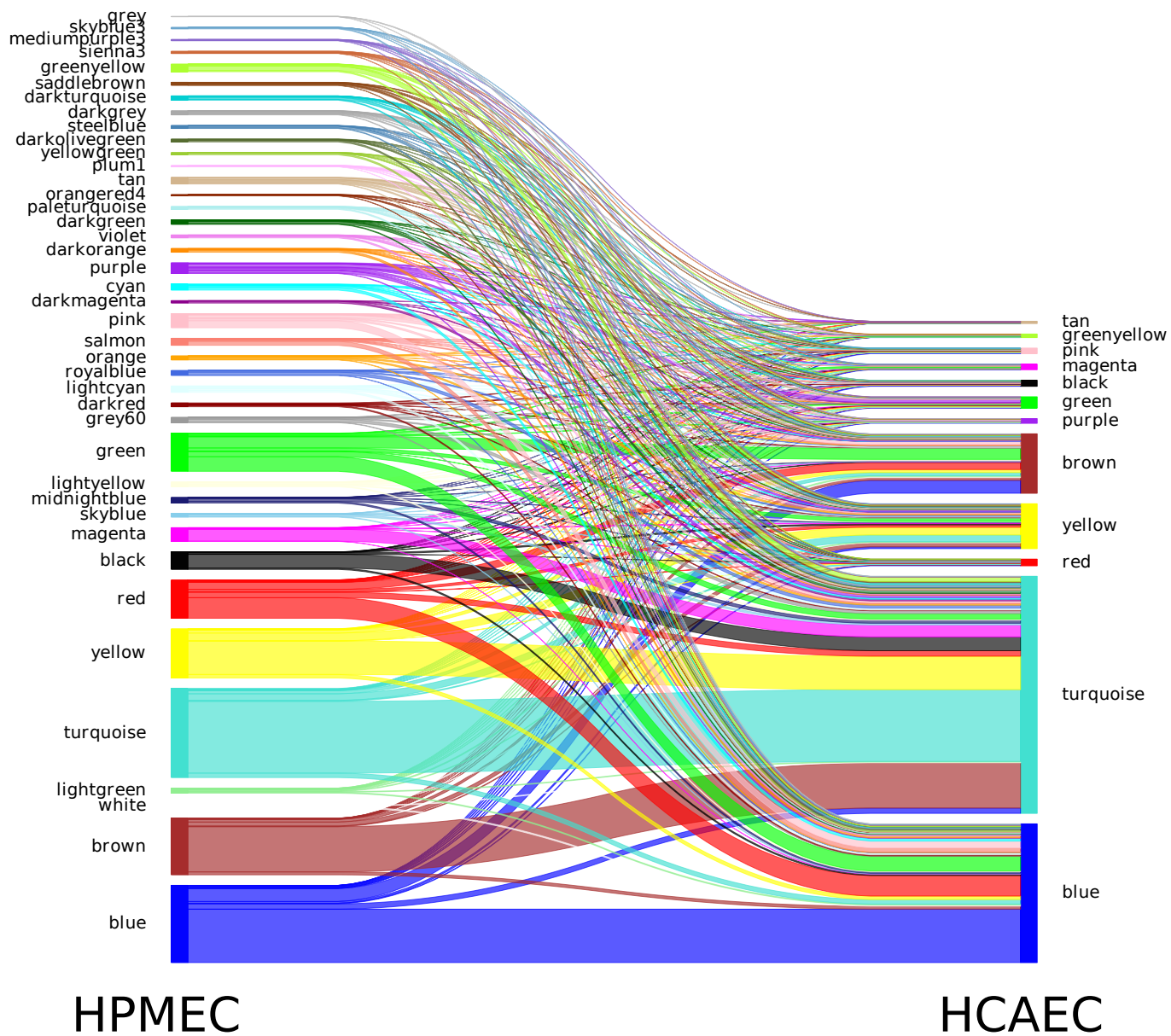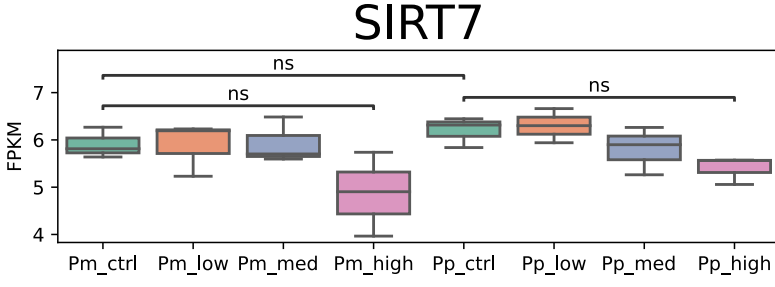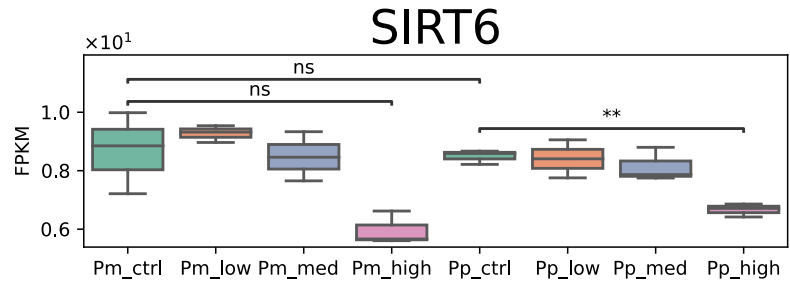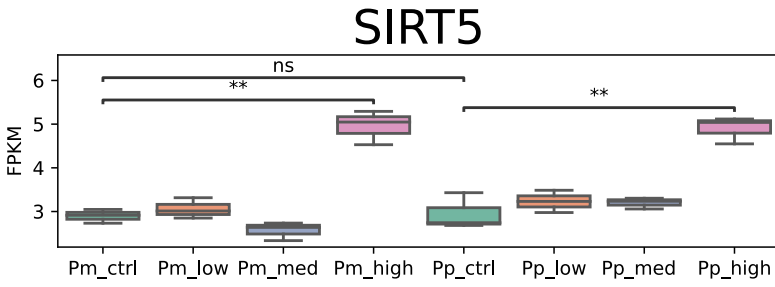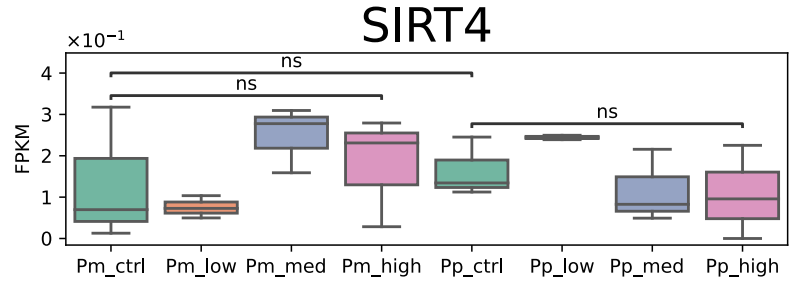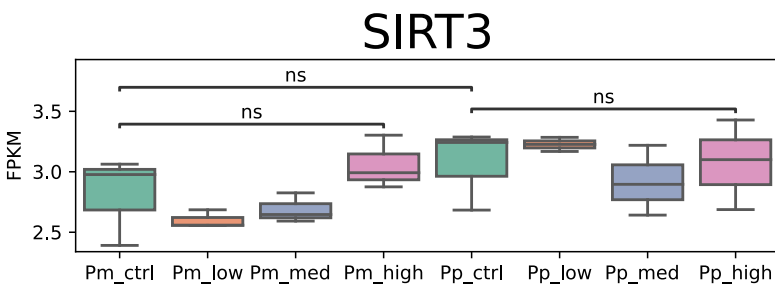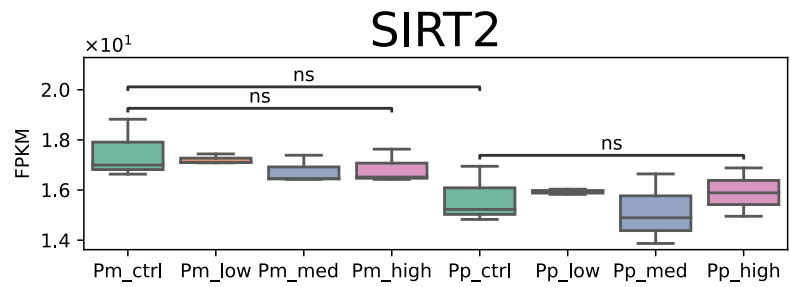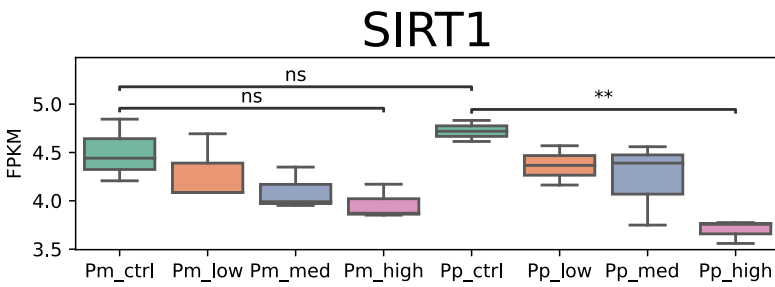
Supplementary Figure 3: Sankey diagram illustrating common genes between HPMEC and HCAEC.
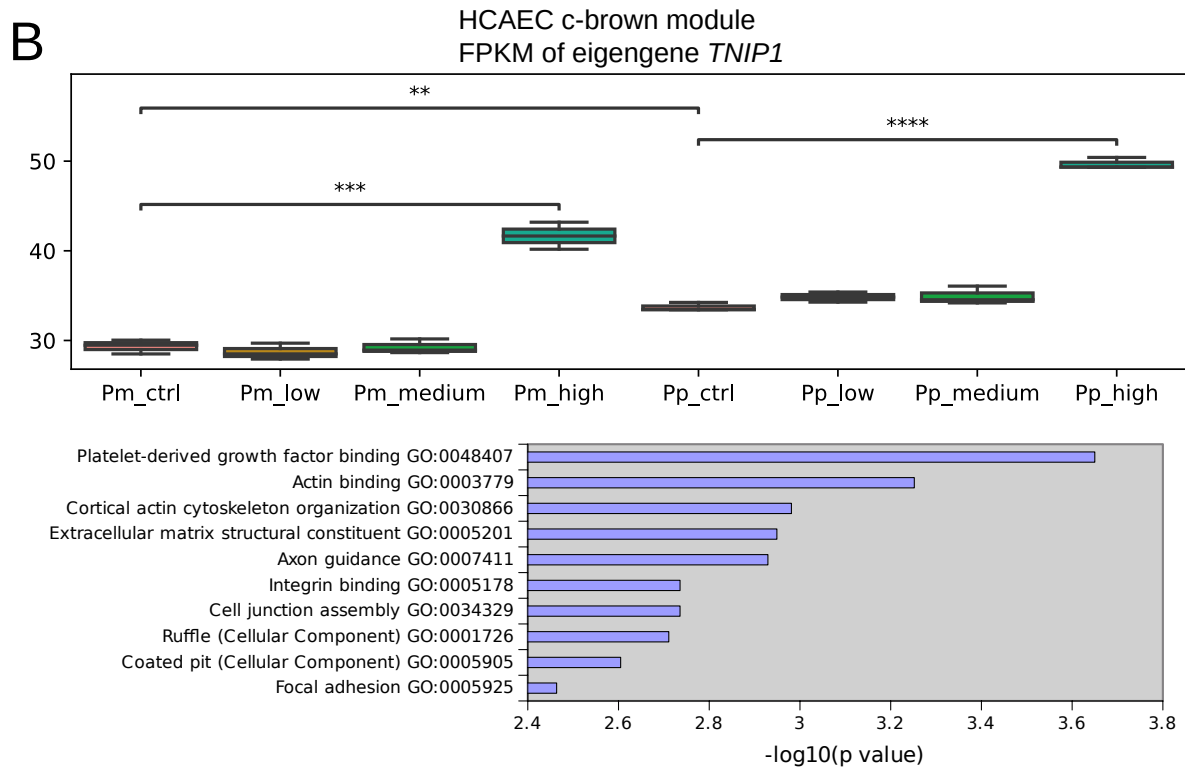
Supplementary Figure 4: Boxplots for eigengenes and list of pathways overrepresented in selected modules in HPMEC (A) and HCAEC (B). Pp: Poly(I:C)+. Pm: Poly(I:C)-. low: 0.1 mM, medium: 1.0 mM, high: 10 mM NMN.

Supplementary Figure 5: Gene expression of the seven sirtuin genes in HPMEC cells under different poly(I:C) conditions and NMN doses. Pp: Poly(I:C)+. Pm: Poly(I:C)-. low: 0.1 mM, med: 1.0 mM, high: 10 mM NMN.

Supplementary Figure 6: Gene expression of the seven sirtuin genes in HCAEC cells under different poly(I:C) conditions and NMN doses. Pp: Poly(I:C)+. Pm: Poly(I:C)-. low: 0.1 mM, med: 1.0 mM, high: 10 mM NMN.