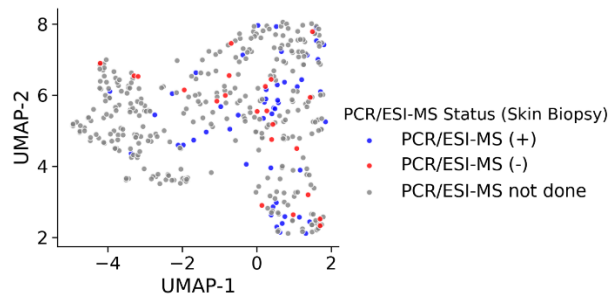


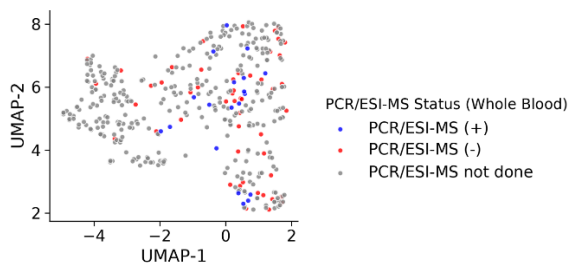
Supplementary Material

1 Supplementary Figures

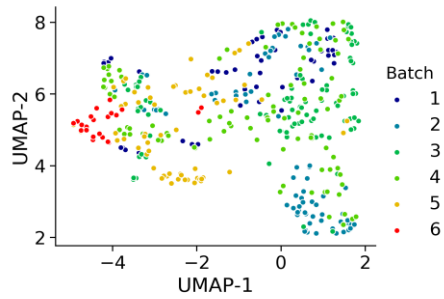
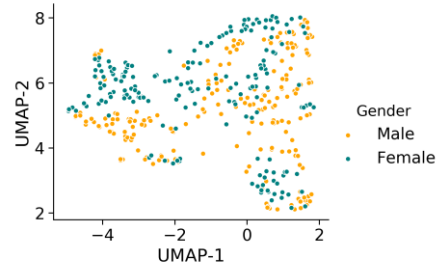
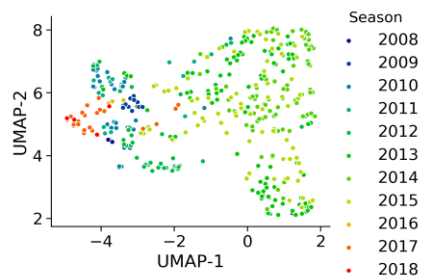
A



B



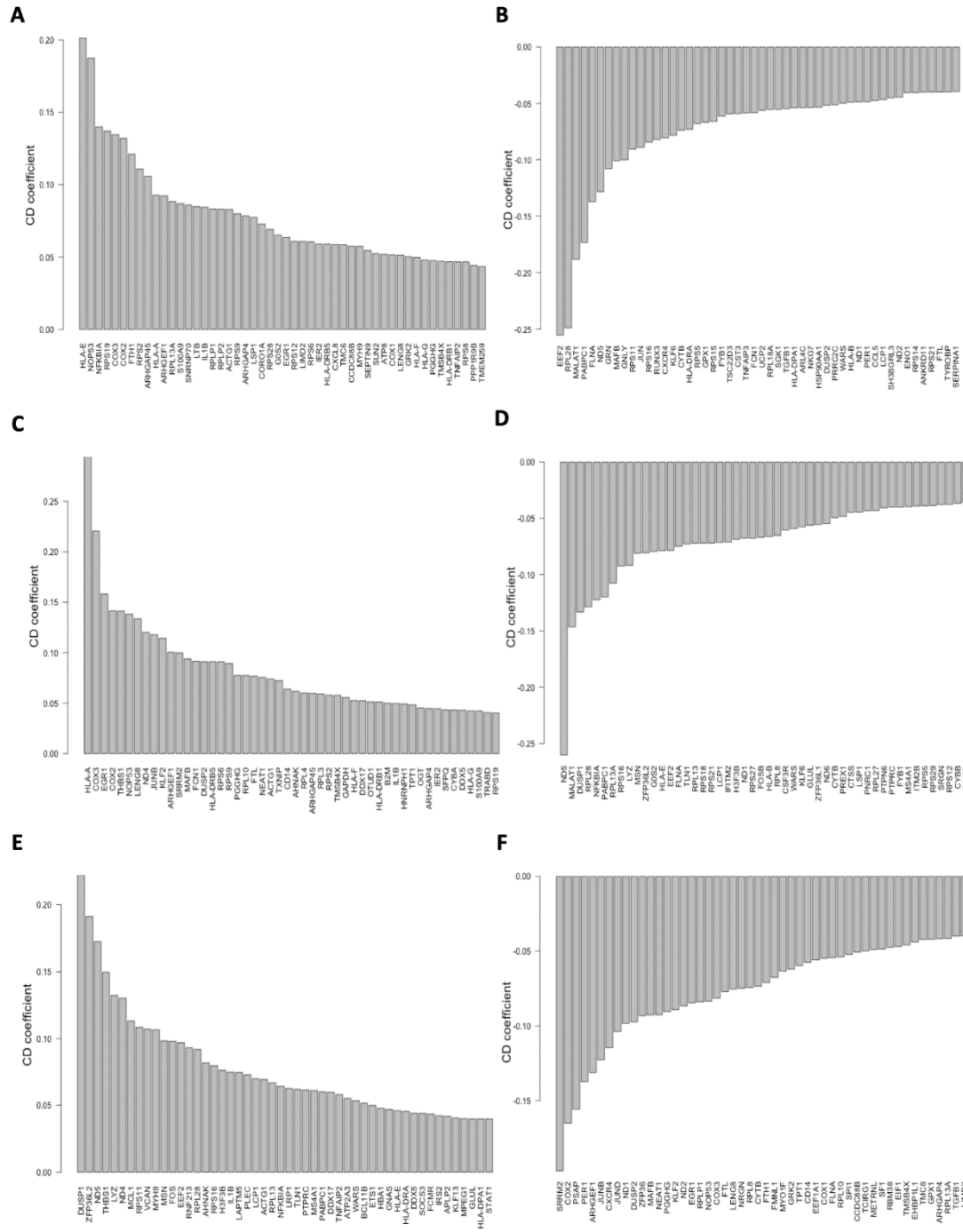
Supplementary Figure 1. UMAP projection of all samples collected for the study based on RNA-seq expression where each sample, representing a patient at a specific visit, is colored by positive (blue), negative (red) detection of antigens via PCR/ESI-MS in the (A) skin or (B) blood. Samples marked in gray did not have this test done. This test was applied to 68/72 of the patients during their first visit.

A**B****C**

Supplementary Figure 2. UMAP projection of all samples collected for the study based on RNA-seq expression where each sample, representing a patient at a specific visit, is colored by (A) batch; (B) gender; and (C) season.



Supplementary Figure 3. Top 5 enriched terms in multiple gene set libraries for the top 200 up-regulated genes in LD cases based on Enrichr analysis.



Supplementary Figure 4. Top ranked up-regulated and down-regulated differentially expressed genes between all pairwise comparisons of clusters based on the Characteristic Direction method. (A) Cluster 1 Up-regulated Genes (vs. Cluster0) / Cluster 0 Down-regulated Genes (vs. Cluster 1). (B) Cluster 1 Down-regulated Genes (vs. Cluster 0) / Cluster 0 Up-regulated Genes (vs. Cluster 1). (C) Cluster 1 Up-regulated Genes (vs. Cluster 2) / Cluster 2 Down-regulated Genes (vs. Cluster 1). (D) Cluster 1 Down-regulated Genes (vs. Cluster 2) / Cluster 2 Up-regulated Genes (vs. Cluster 1). (E) Cluster 2 Up-regulated Genes (vs. Cluster 0) / Cluster 0 Down-regulated Genes (vs. Cluster 2). (F) Cluster 2 Down-regulated Genes (vs. Cluster 0) / Cluster 0 Up-regulated Genes (vs. Cluster 2).

A





Supplementary Figure 5. Top 5 enriched terms in multiple gene set libraries based on Enrichr analysis for the top 200 up-regulated genes in (A) cluster 0 when compared to cluster 1 and (B) cluster 1 when compared to cluster 0.