

**Supplementary Figure S3.** Manhattan plot from the EWAS performed in the entire cohort. The plot shows the result of the COVID-19 severity association test over 735.349 CpG positions. The blue dashed line indicates the genome-wide significance threshold of a Benjamini-Hochberg corrected P value lower than 0.05. Black dots represent the 44 CpGs signature labeled with their corresponding genes.