SUPPLEMENTARY MATERIAL

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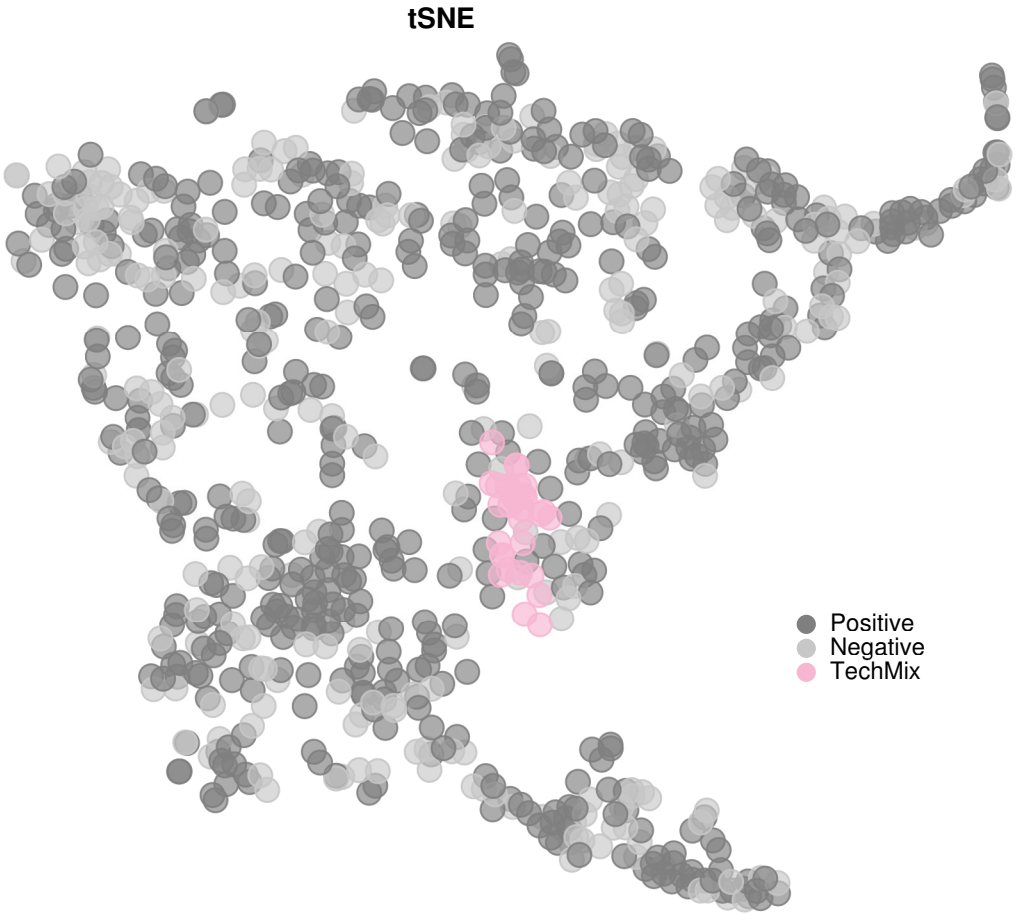
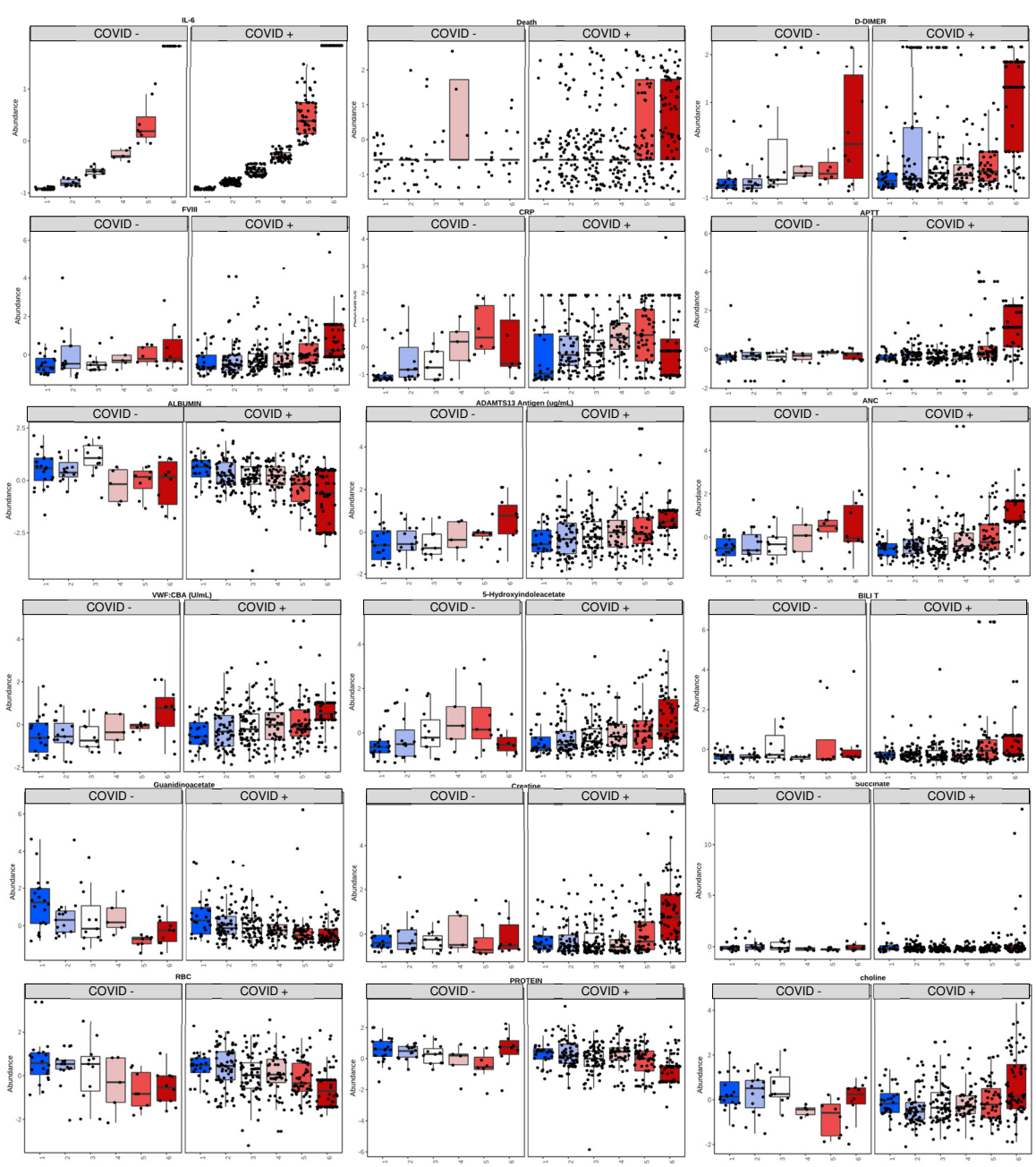
SUPPLEMENTARY FIGURES



Supplementary Figure 1 – tSNE Analysis of Metabolomics data confirms quality of the analysis, with technical mixes clustering together (pink).

Impact of IL-6

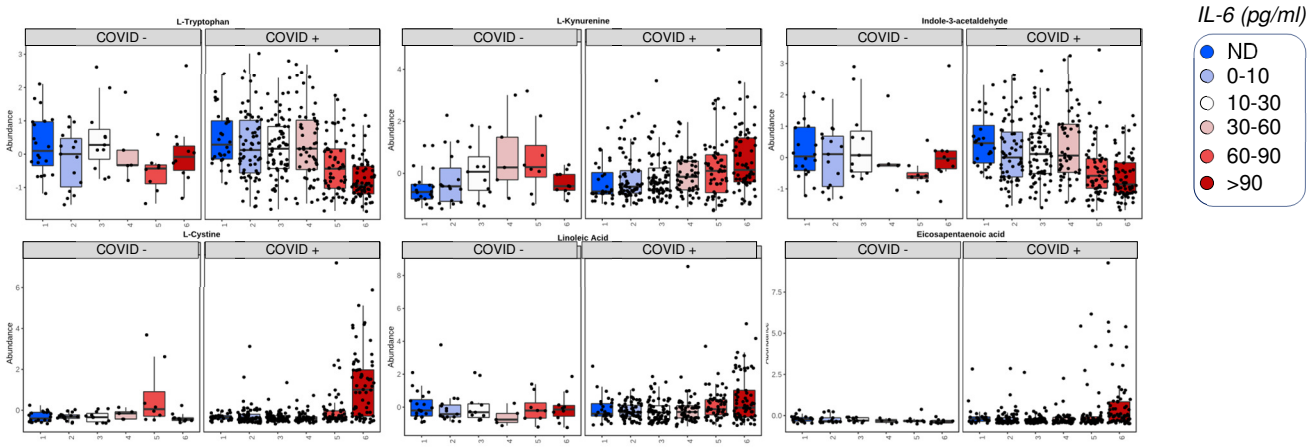


IL-6 (pg/ml)

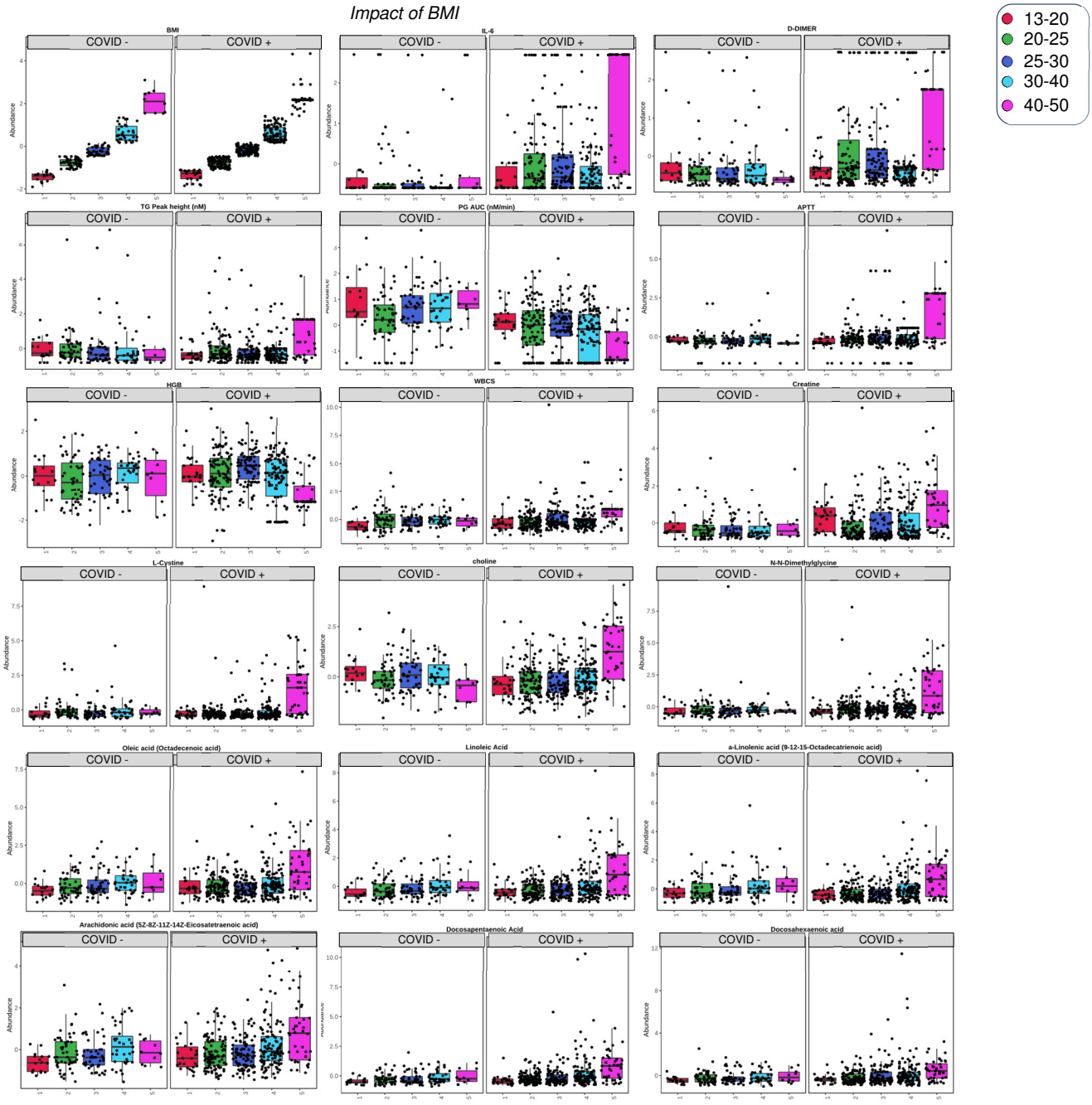
- ND
- 0-10
- 10-30
- 30-60
- 60-90
- >90

continues →

Impact of IL-6

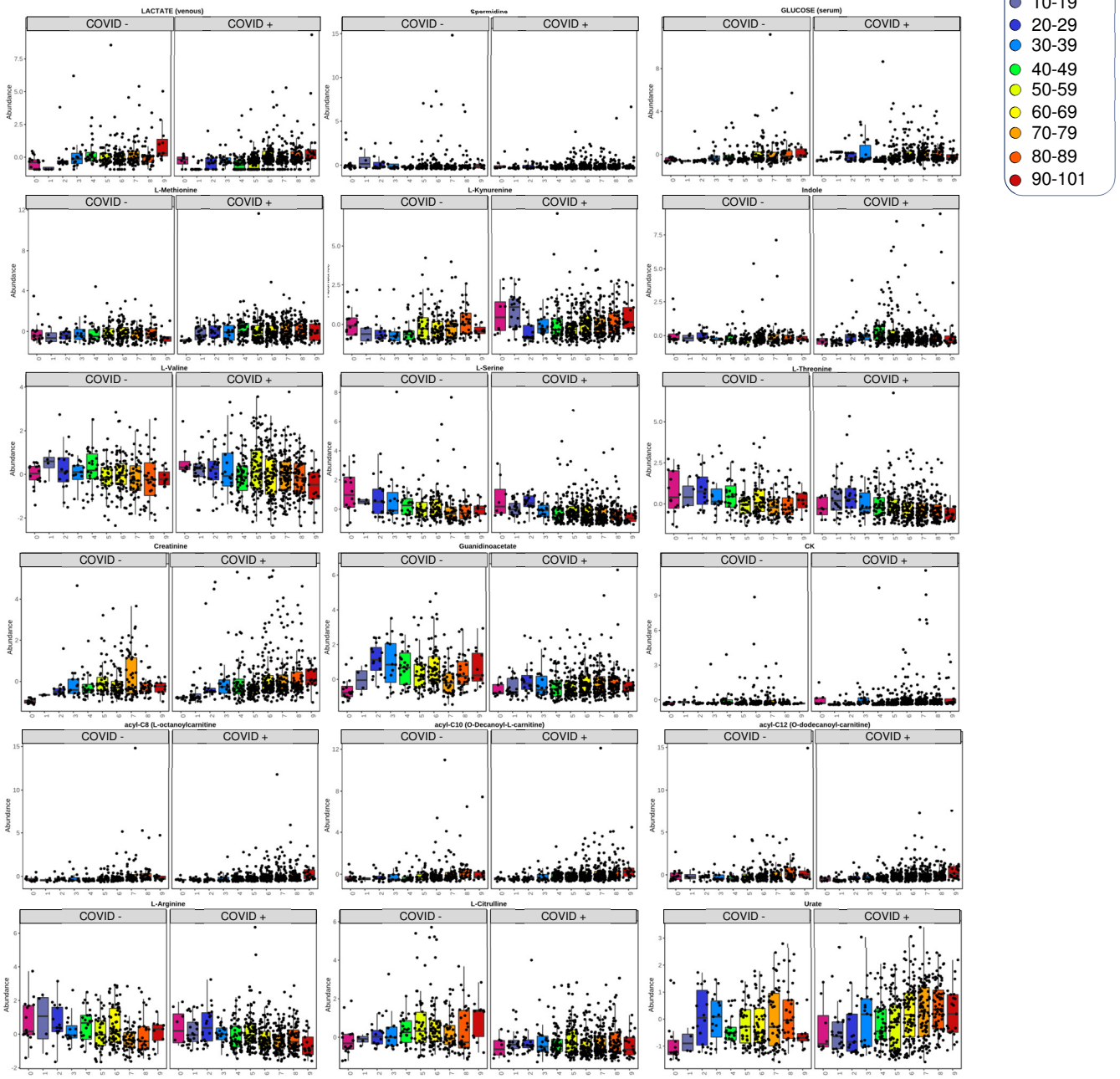


Supplementary Figure 2 – Markers of blood group in COVID negative (-) and positive (+) patients, as determined by Two-way ANOVA.



Supplementary Figure 3 – Markers of BMI in COVID negative (-) and positive (+) patients, as determined by Two-way ANOVA.

Impact of Age



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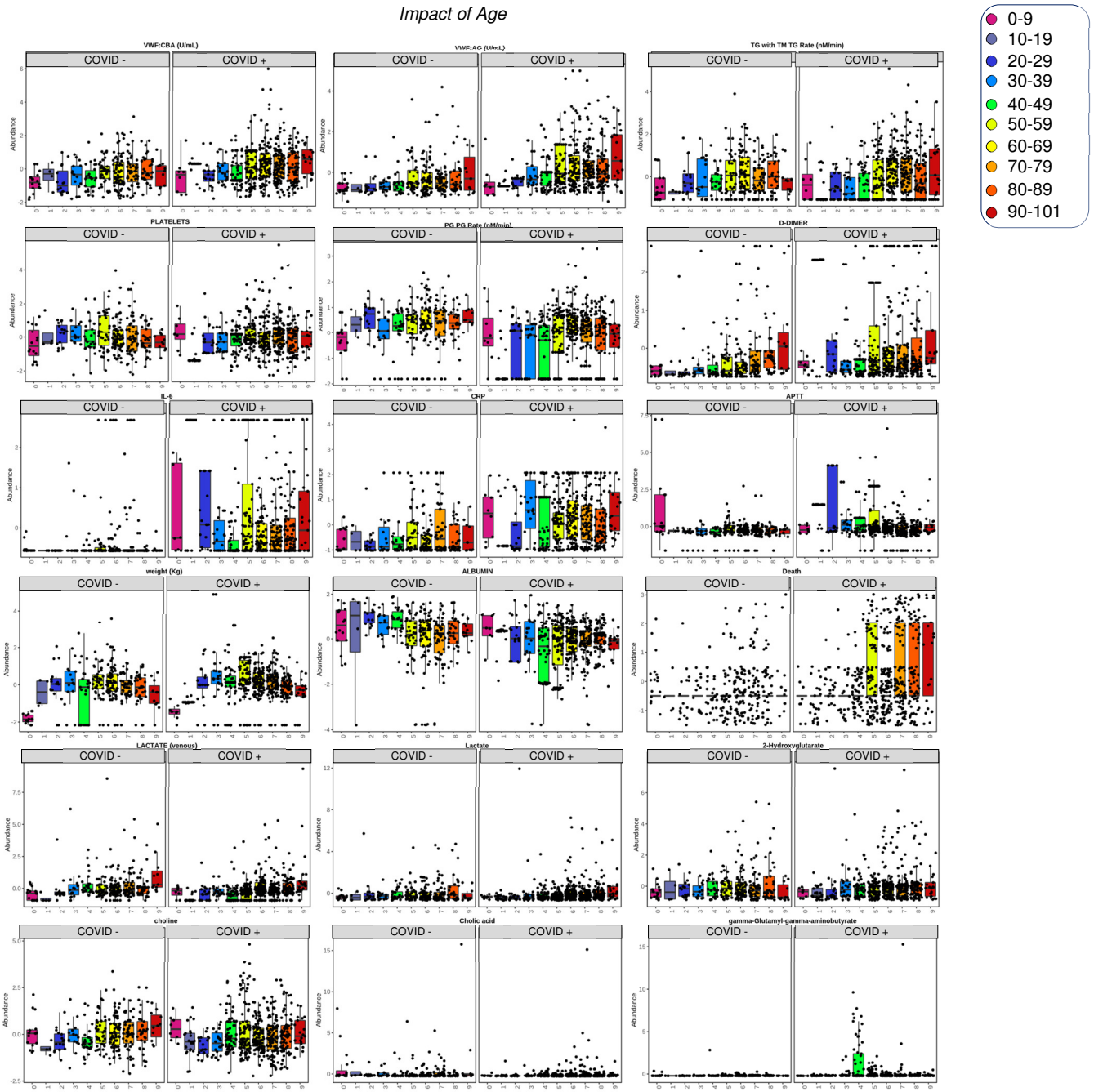
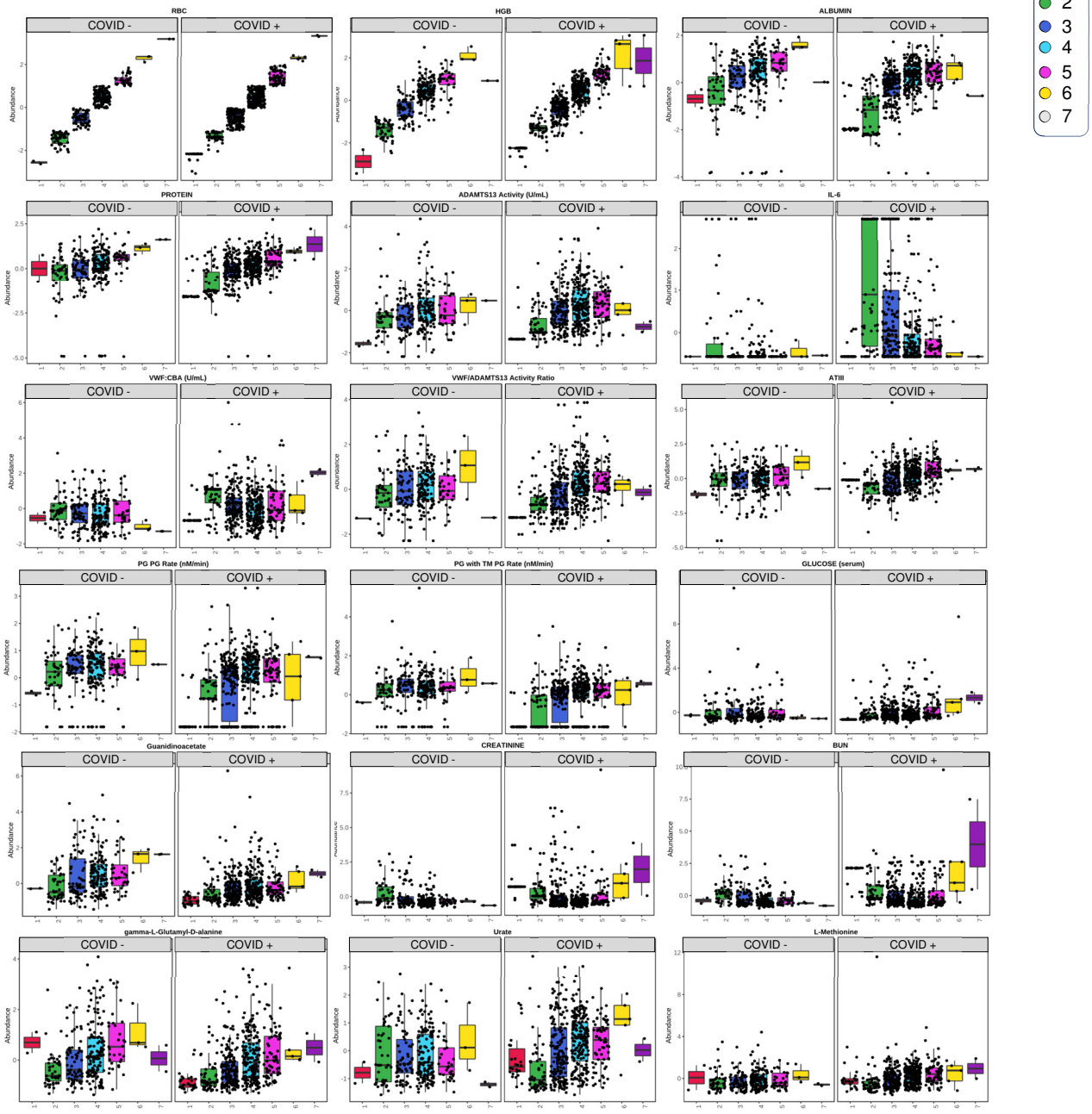


Supplementary Figure 4 – Markers of age in COVID negative (-) and positive (+) patients, as determined by Two-way ANOVA.

Supplementary Figure 5 – Markers of sex in COVID negative (-) and positive (+) patients, as determined by Two-way ANOVA (0 = female; 1 = male).

Impact of RBC counts (1x 10^6 /µl)



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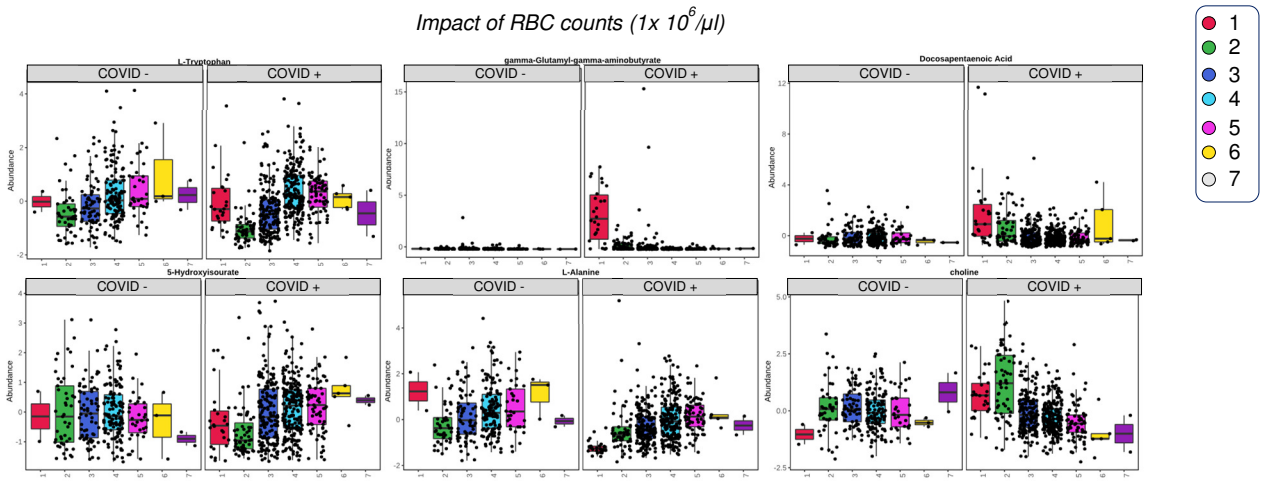
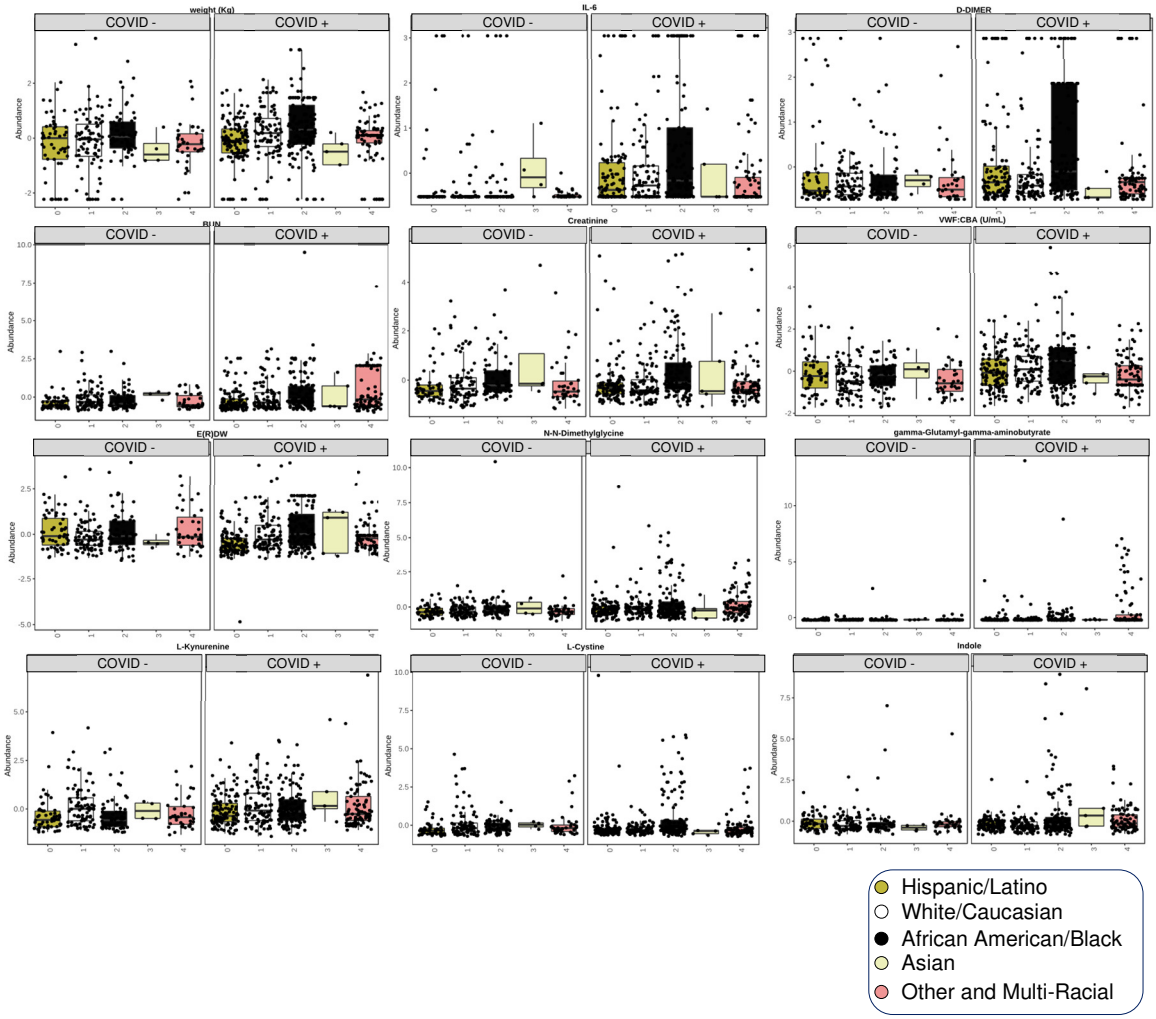
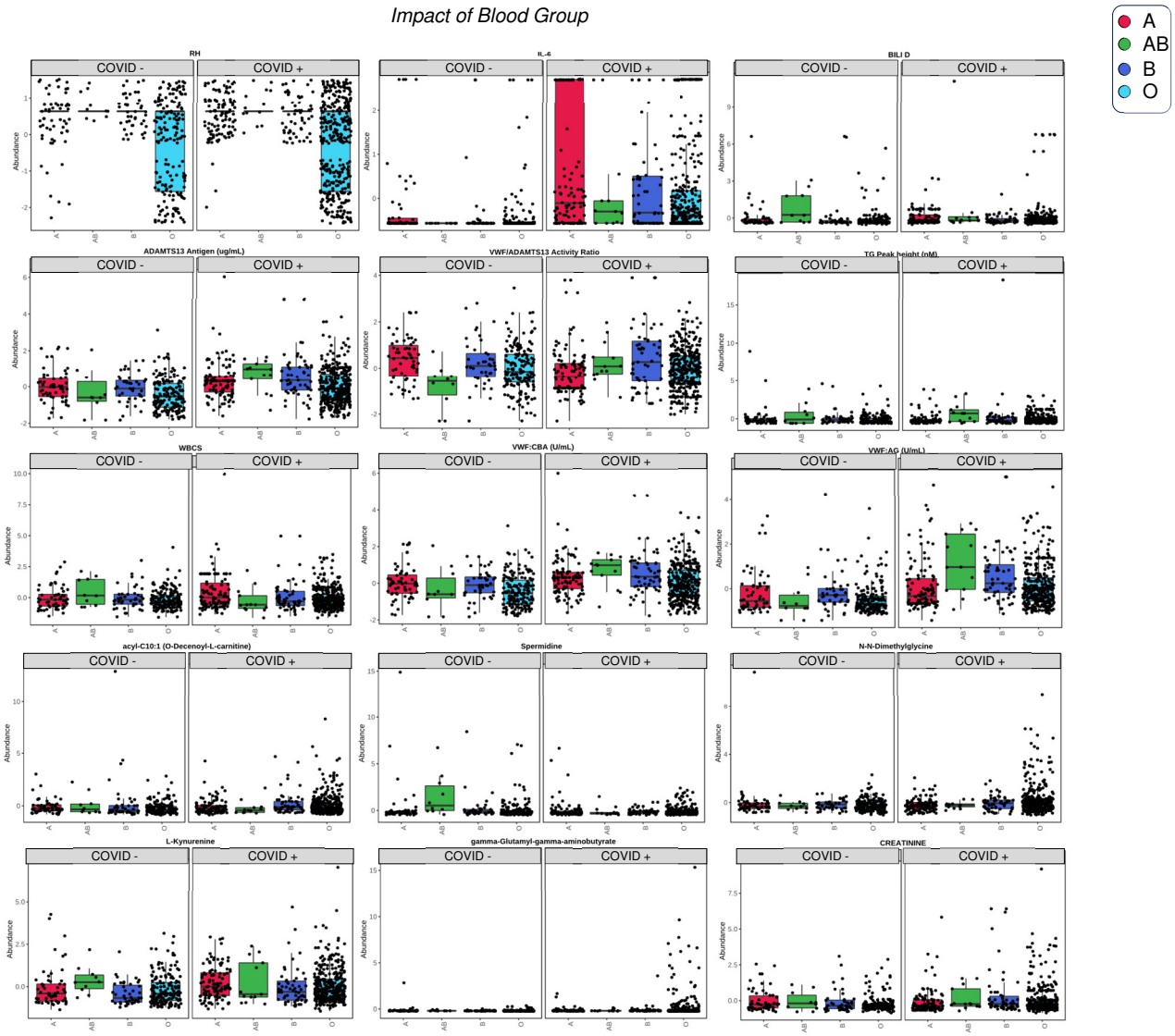


Supplementary Figure 6 – Markers of RBC counts in COVID negative (-) and positive (+) patients, as determined by Two-way ANOVA (numbers in the legend indicate RBC count in millions per microliter).

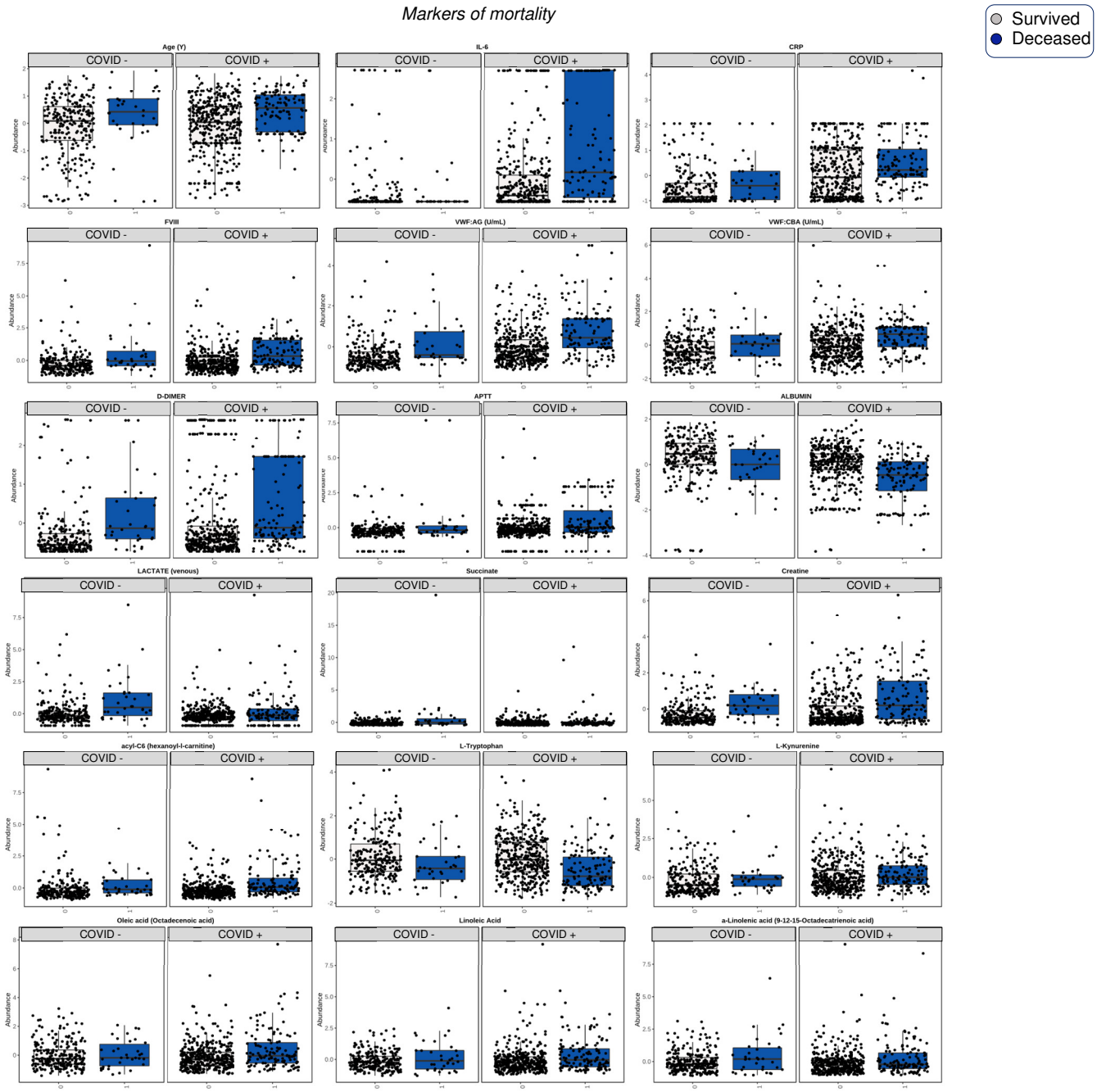
Impact of Race



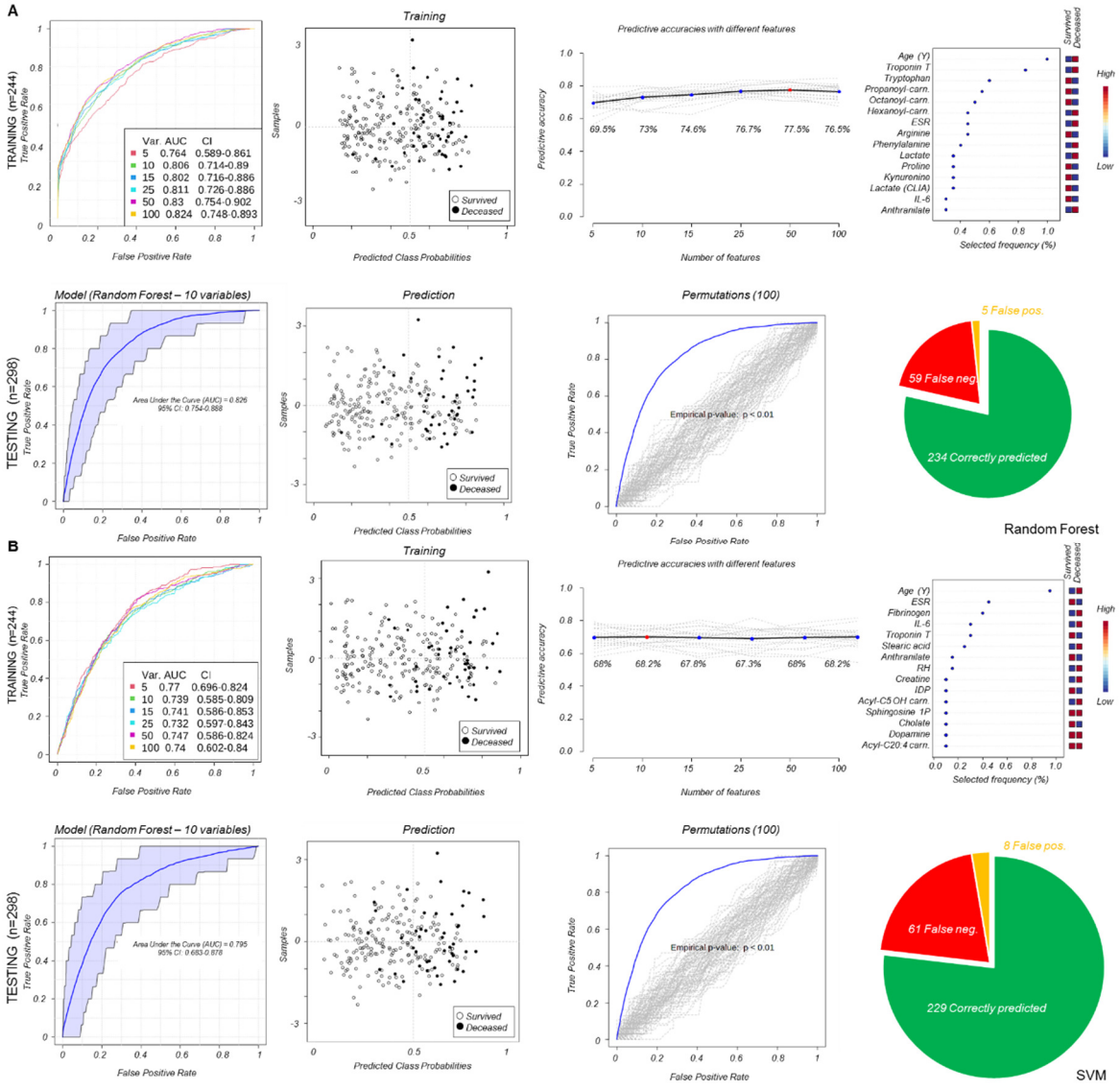
Supplementary Figure 7 – Markers of race in COVID negative (-) and positive (+) patients, as determined by Two-way ANOVA.



Supplementary Figure 8 – Markers of blood group in COVID negative (-) and positive (+) patients, as determined by Two-way ANOVA.

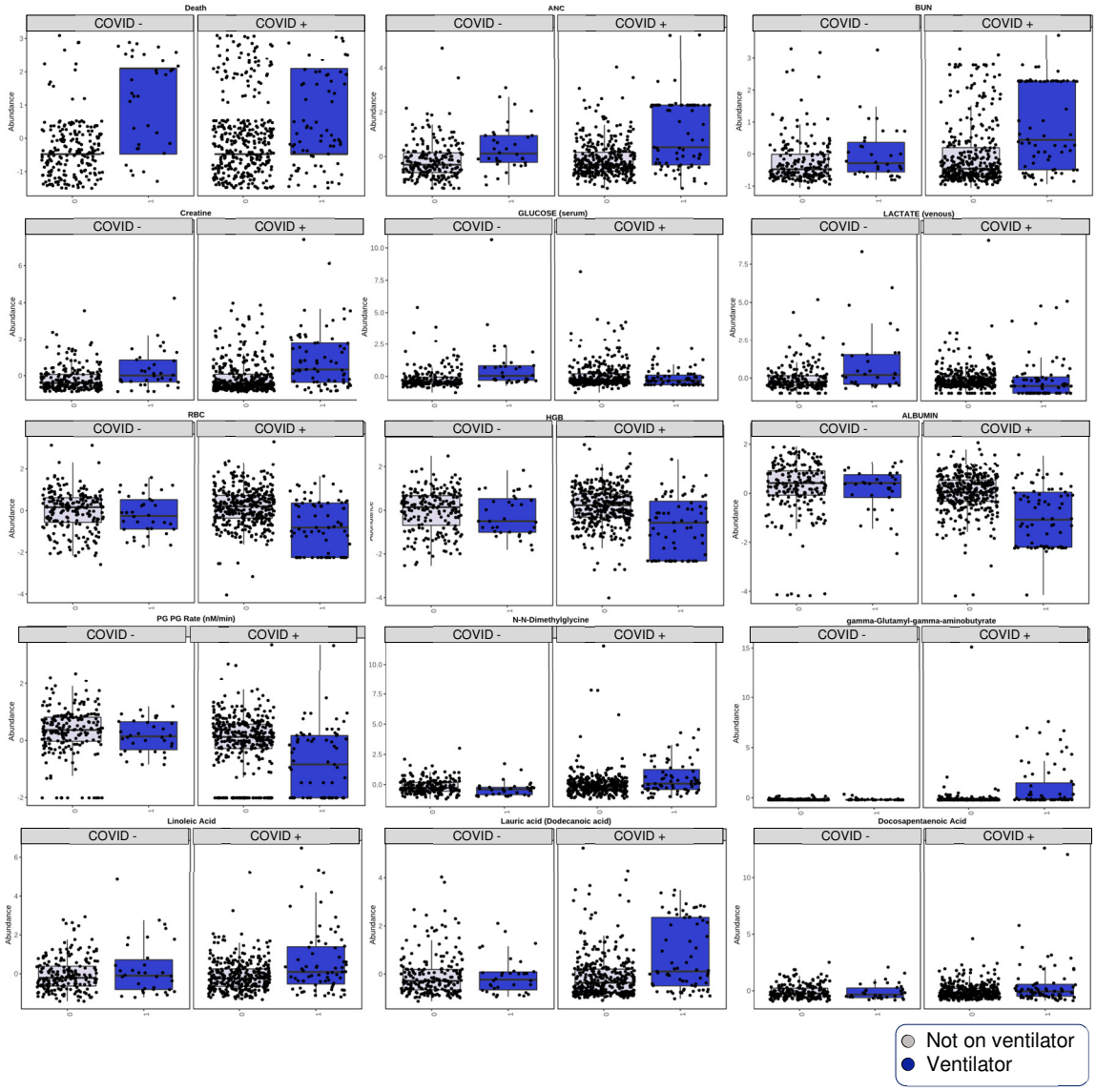


Supplementary Figure 9 – Markers of mortality in COVID negative (-) and positive (+) patients, as determined by Two-way ANOVA (0 = survived; 1 = dead).

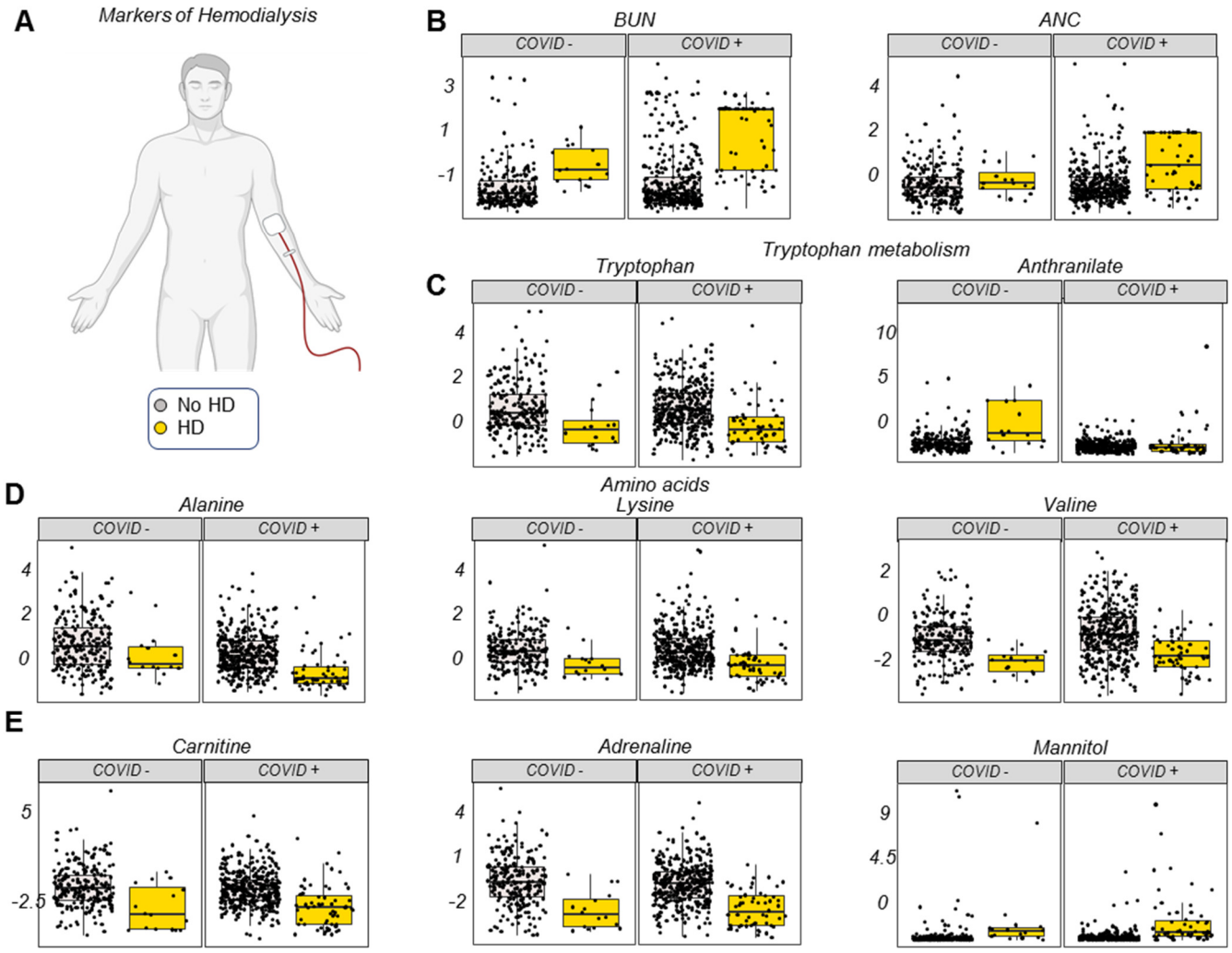


Supplementary Figure 10– Comparison of predictive models of mortality via Random Forest (A) and SVM (B) algorithms. Patients were curated for metabolomics, clinical, coagulation and inflammatory variables (total n = 542). The cohort was then divided in two groups, one for training (n = 244) and one for testing (n = 298) of the algorithm, which resulted to be ~78% and ~75% accurate, respectively.

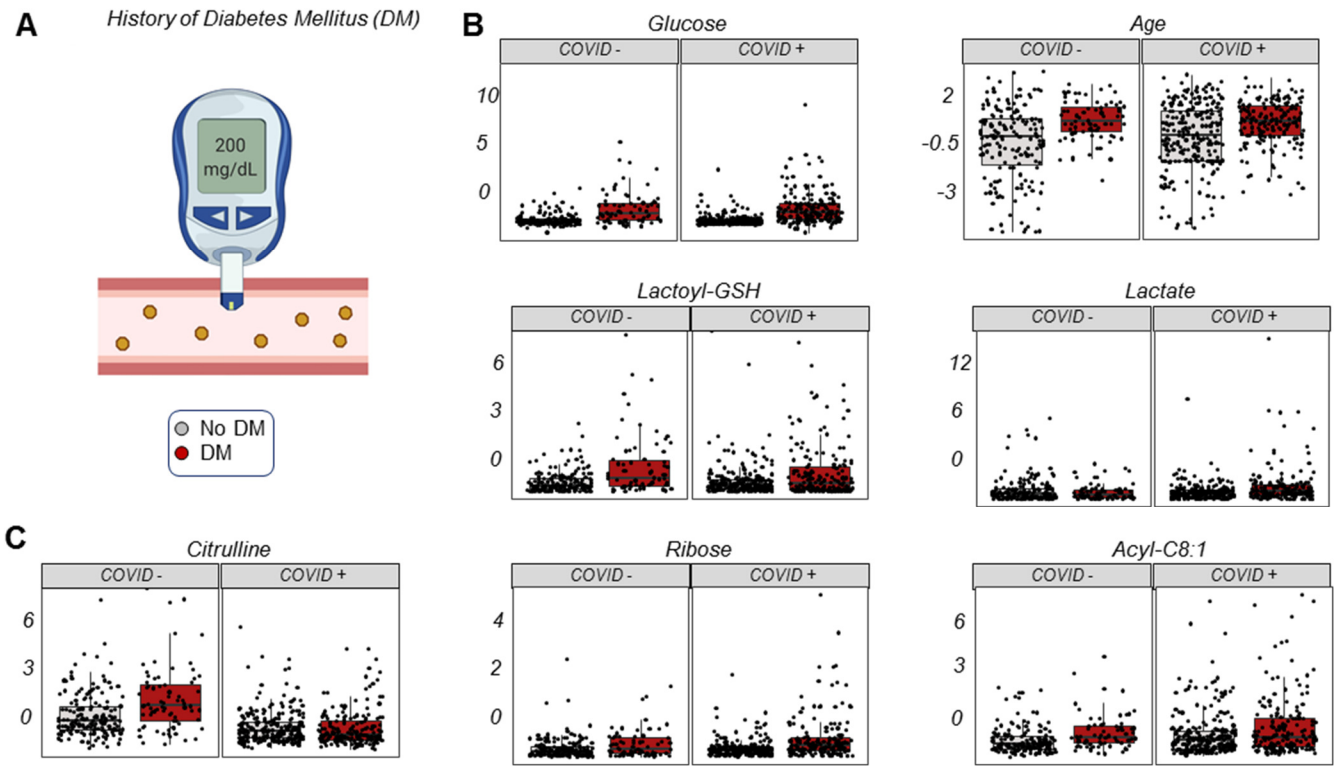
Impact of being on ventilator



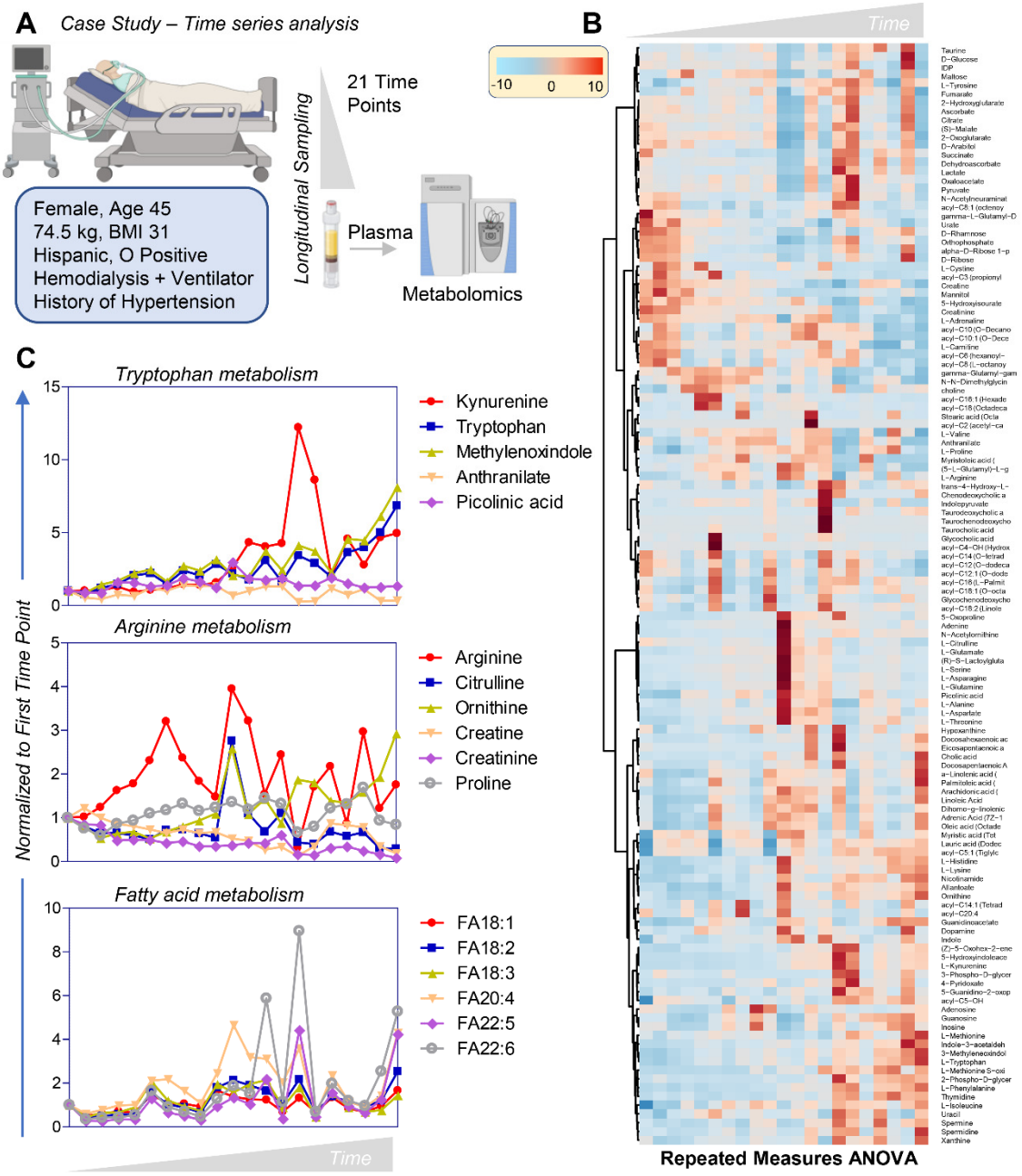
Supplementary Figure 11 – Markers of ventilators in COVID negative (-) and positive (+) patients, as determined by Two-way ANOVA (0 = not on ventilator; 1 = on ventilator).



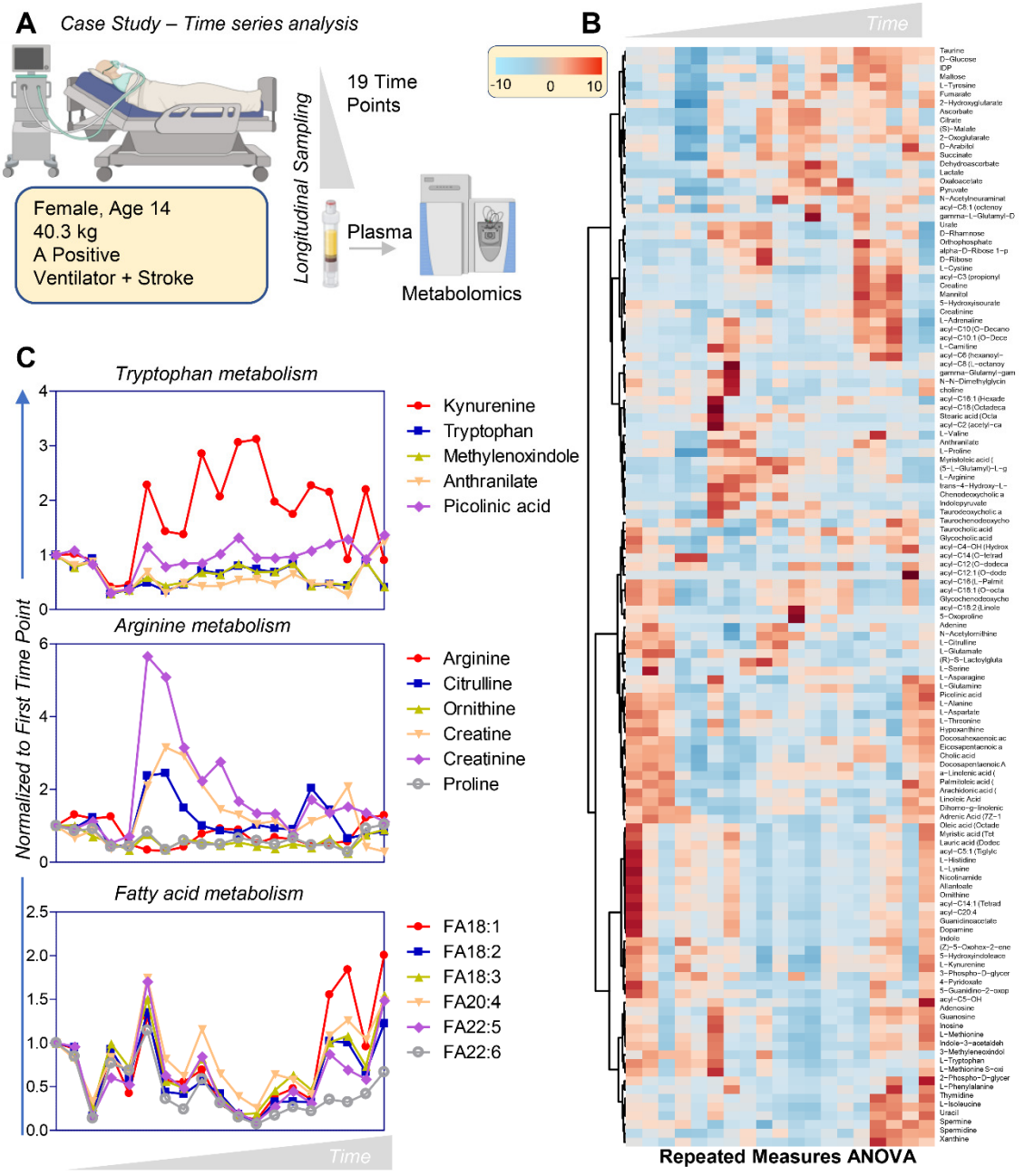
Supplementary Figure 12 – Markers of hemodialysis (without clotting) in COVID negative (-) and positive (+) patients, as determined by Two-way ANOVA (0 = no hemodialysis; 1 = on hemodialysis).



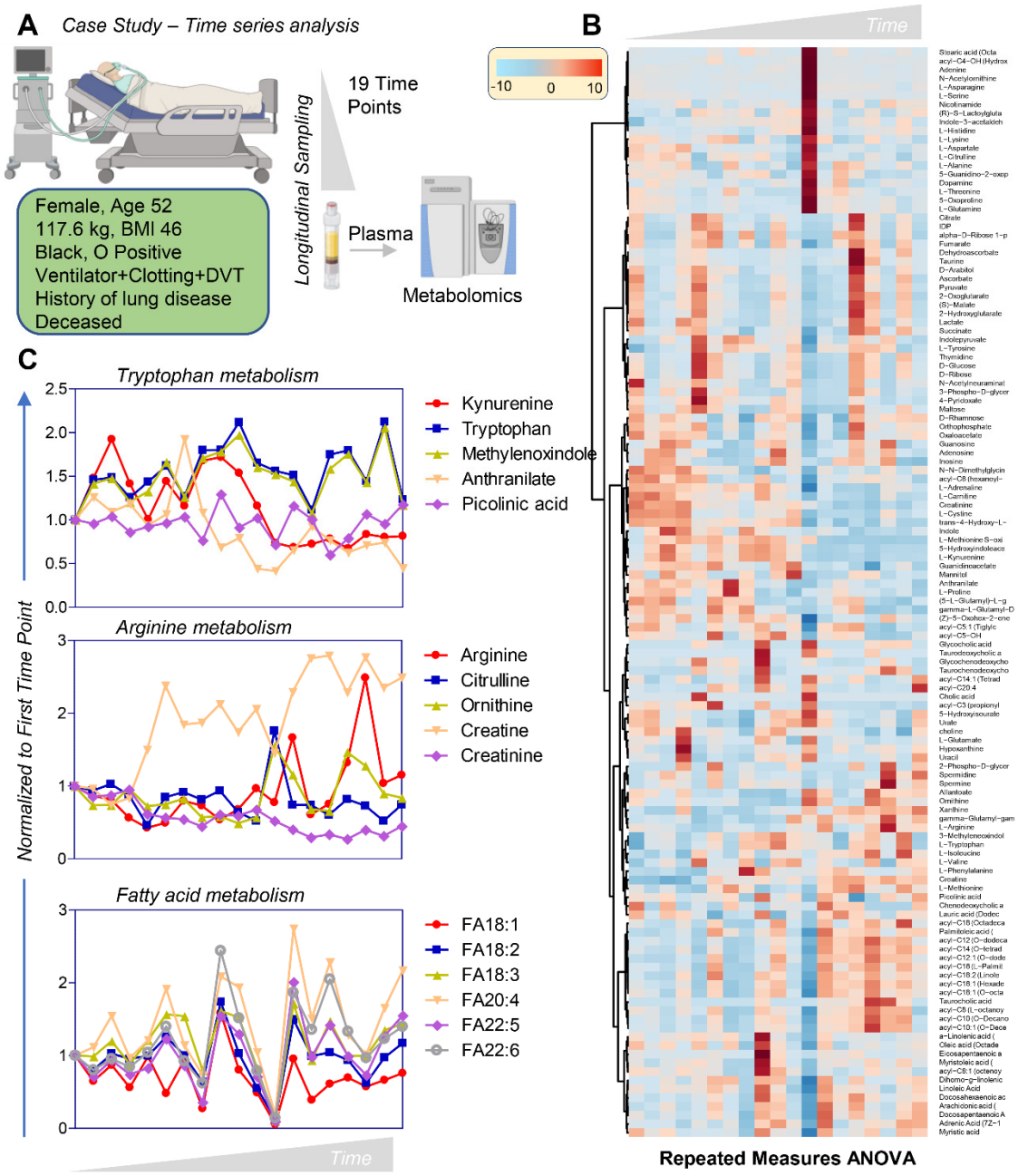
Supplementary Figure 13 – Impact of pre-existing conditions such as diabetes in COVID negative (-) and positive (+) patients, as determined by Two-way ANOVA (0 = no history of diabetes; 1 = diabetes).



Supplementary Figure 14 – Time course analysis of a critically ill patient who survived.



Supplementary Figure 15 – Time course analysis of a critically ill patient who survived (vectorial version of in manucript figure).



Supplementary Figure 16 – Time course analysis of a critically ill patient who died (vectorial version of in manucript figure).