

## **Comparison of characteristics of cfDNA fragments between patients with severe SARS-COV-2 infection and healthy control group**

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SARS-COV-2 virus (Severe acute respiratory syndrome coronavirus 2) is a human pathogen causing a potentially fatal disease COVID-19, responsible for a world pandemic. Progress of COVID-19 in an infected patient might be asymptomatic, causing only light symptoms or severe symptoms that might result in death of the patient (mortality rate 1.21%). The mechanism behind the severity of a patient's symptoms is currently unknown - with the exception of statistically inferred groups of people being at a higher risk of developing severe symptoms such as seniors, immunosuppressed patients or patients suffering from asthma.

In our work, we have compared characteristics of cfDNA fragments isolated from blood plasma of patients who have developed severe COVID-19 symptoms with healthy control group's cfDNA fragments. One of several characteristics with statistically significant difference is fragment length with patients's fragments (median size 99.5) being longer in comparison to control group's fragments (median size 81).