

## IN BRIEF

### COVID-19

#### **In the eye of the COVID-19 cytokine storm**

Not all patients with COVID-19 develop the same symptoms, but the immunological determinants of a poor prognosis are unknown. In this preprint article, Yang, Y et al. followed a cohort of 53 clinically moderate and severe patients; they conducted a multiplex screen for 48 cytokines and correlated these results with lab tests, clinical characteristics and viral loads. They found a marked increase of 14 cytokines in patients with COVID-19 compared with healthy controls. Continuously high levels of three of these cytokines (CXCL10, CCL7 and IL-1 receptor antagonist) were associated with increased viral load, loss of lung function, lung injury and a fatal outcome. These observations offer key insights into the immunopathology of COVID-19 and provide new avenues for prognosis and therapy.

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**ORIGINAL ARTICLE** Yang, Y. et al. Exuberant elevation of IP-10, MCP-3 and IL-1ra during SARS-CoV-2 infection is associated with disease severity and fatal outcome. Preprint at medRxiv <https://doi.org/10.1101/2020.03.02.20029975> (2020)