Transferrin identified as potential contributor to COVID-19 severity

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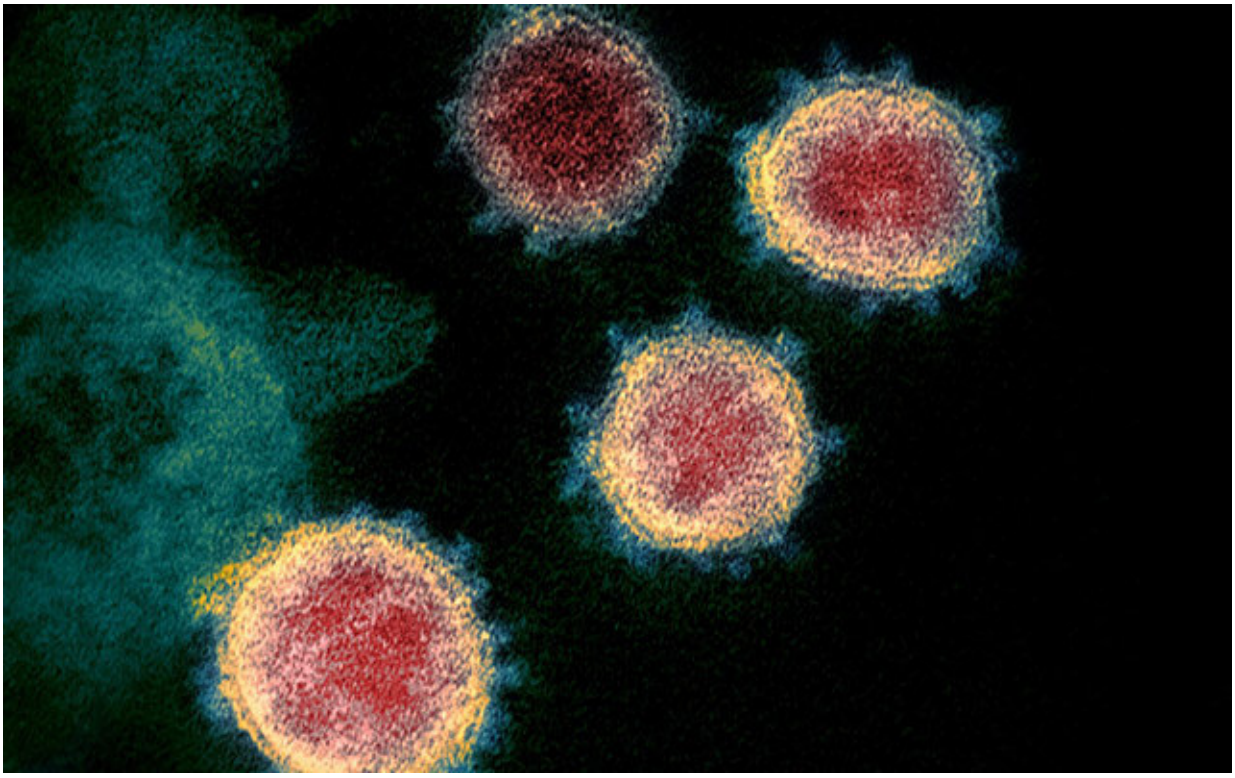

A colorized scanning electron micrograph of the SARS-CoV-2 virus. Credit: NIAID

SARS-CoV-2 is the coronavirus that causes COVID-19. It is currently not known why some individuals develop only mild or no symptoms when infected, whilst others experience severe, life-threatening forms of

the disease. However, it is known that the risk of COVID-19 becoming severe increases with age and is higher in males than in females. Many severe COVID-19 cases are characterized by increased blood clotting and thrombosis formation.

The team combined existing data on gene expression in humans with cell culture research of SARS-CoV-2-infected cells to search for molecules involved in blood coagulation that differ between females and males, change with age, and are regulated in response to SARS-CoV-2 infection.

Out of more than 200 candidate factors, researchers identified a glycoprotein called transferrin to be a procoagulant (a cause of blood clotting) that increases with age, is higher in males than in females, and is higher in SARS-CoV-2-infected cells. Hence, transferrin may have potential as a biomarker for the early identification of COVID-19 patients at high risk of severe disease.

More information: Katie-May McLaughlin et al. COVID-19-Related Coagulopathy—Is Transferrin a Missing Link?, *Diagnostics* (2020). DOI: 10.3390/diagnostics10080539

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