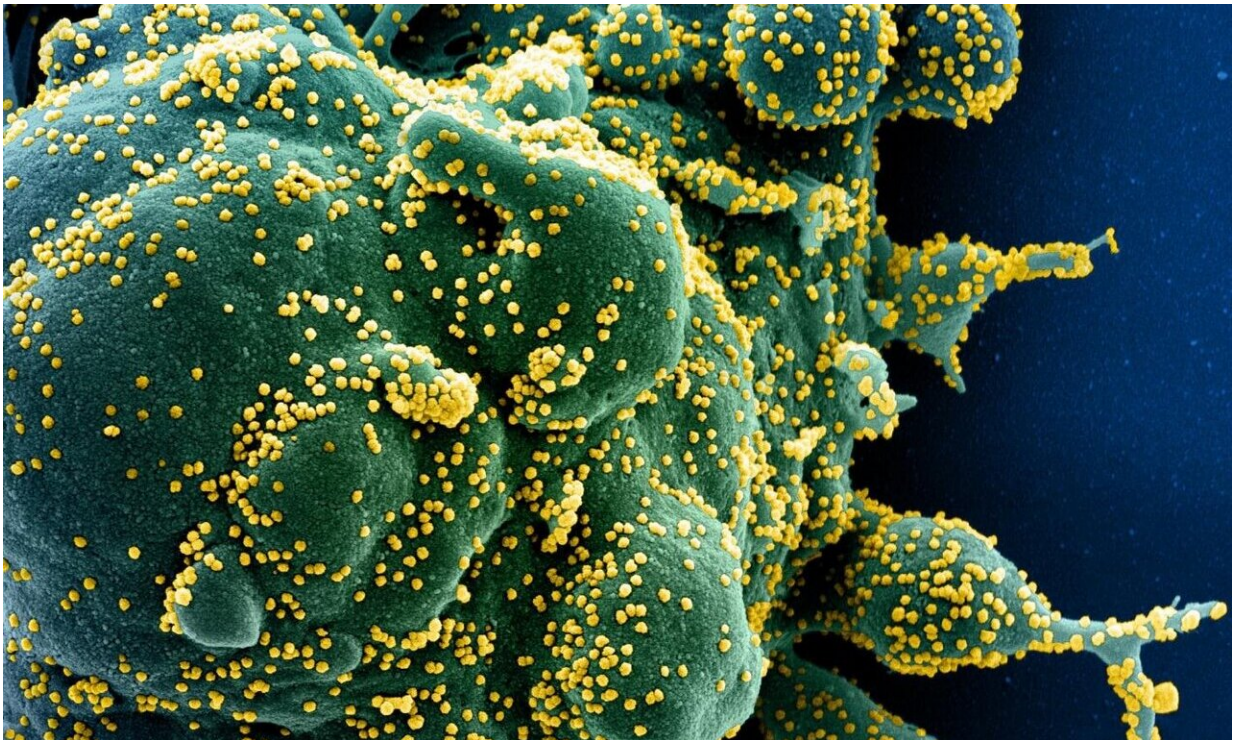


Blood biomarkers for detecting brain injury in COVID-19 patients

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Colorized scanning electron micrograph of an apoptotic cell (green) heavily infected with SARS-COV-2 virus particles (yellow), isolated from a patient sample. Image captured at the NIAID Integrated Research Facility (IRF) in Fort Detrick, Maryland. Credit: NIH/NIAID

COVID-19 can directly cause neurologic symptoms and long-term neurological disease. Elevations of blood biomarkers indicative of brain

injury have been reported in the blood and cerebrospinal fluid of COVID-19 patients. Clinical application of blood biomarkers to improve medical management of COVID-19 patients is reported in the peer-reviewed *Journal of Neurotrauma*.

"The COVID-19 pandemic poses significant risks for acute and persistent neurological deficits, as well as possible increased risk for [neurodegenerative diseases](#)," state Ronald Hayes, Ph.D., Banyan Biomarkers, and coauthors. "The use of blood biomarkers of brain injury integrated with additional existing diagnostic tools with big dataset analytics could provide timely, cost effective approaches to address this increasingly urgent unmet medical need."

"Although presented in the context of a review article, the manuscript represents so much more," says John Povlishock, Ph.D., Editor-in-Chief of *Journal of Neurotrauma*. "The paper concisely reviews the increased risks of the COVID-19 patient for persistent neurological deficits, [psychiatric disorders](#), and potential neurodegenerative diseases, while describing mechanisms of the CNS penetrance and action of the virus. The [paper](#) provides not only an assessment of the challenges presented by the effects of COVID-19 on the brain, but also provides specific recommendations to address them. In all, this review masterfully argues that many of the technologies needed to probe the effects of the COVID-19 virus on the brain are in hand and can be rapidly applied."

More information: Steven T. DeKosky et al, Blood Biomarkers for Detection of Brain Injury in COVID-19 Patients, *Journal of Neurotrauma* (2020). [DOI: 10.1089/neu.2020.7332](https://doi.org/10.1089/neu.2020.7332)

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