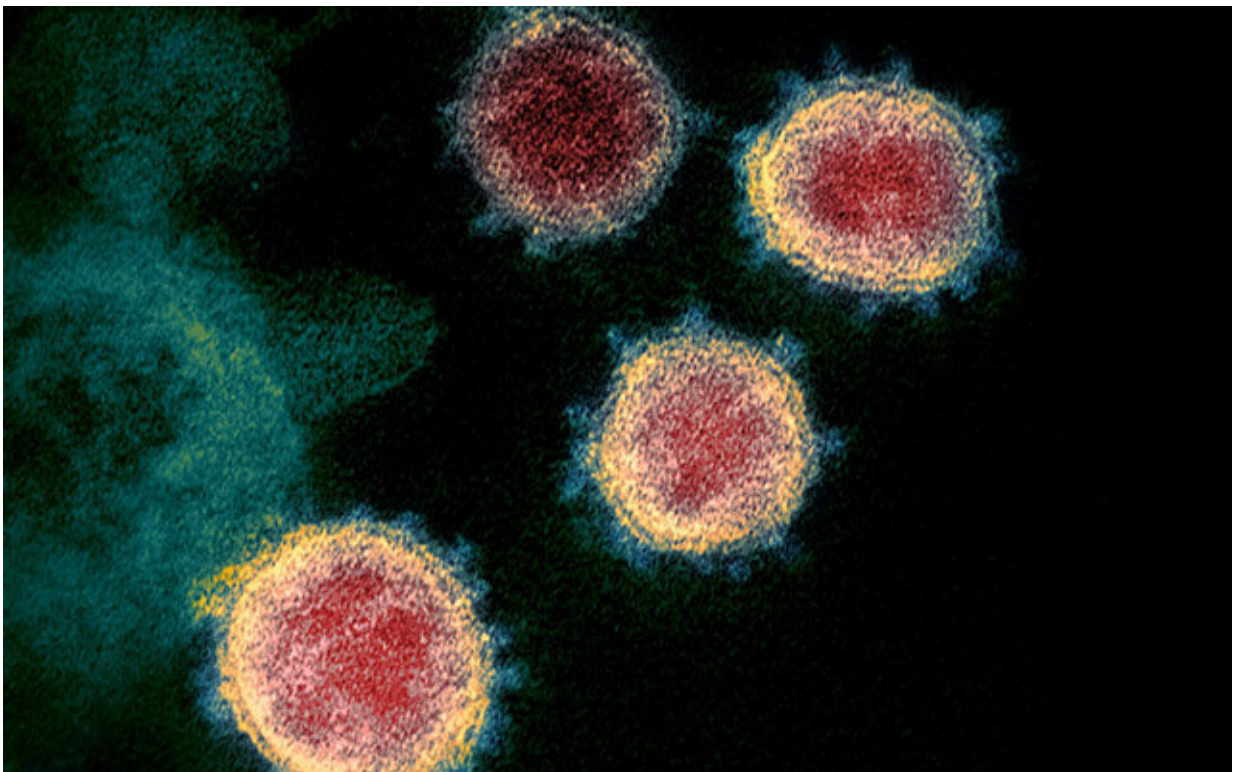


Biomedical sciences researchers provide methods to inactivate and safely study SARS-CoV-2

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

Detailed methods on how to perform research on SARS-CoV-2, the virus that causes COVID-19, including procedures that effectively

inactivate the virus to enable safe study of infected cells have been identified by virologists in the Institute for Biomedical Sciences at Georgia State University.

The peer-reviewed paper on the novel coronavirus, published in the journal *Viruses*, is a resource for newcomers in the field.

"Importantly, the study defines specific methods that fully inactivate the virus, that is make it non-infectious, in ways compatible with further scientific analysis," said Dr. Christopher Basler, professor in the Institute for Biomedical Sciences, director of the Center for Microbial Pathogenesis and a Georgia Research Alliance Eminent Scholar in Microbial Pathogenesis.

"This allows researchers to study the proteins and genes of the virus and how the infected host responds to infection outside of high containment. Confirming that such analyses can be done safely, with no risk of infection, will increase the rate of discovery about the virus and COVID-19."

When the disease COVID-19 appeared in humans, virologists in Basler's lab, who study emerging pathogens, wanted to contribute to the effort to understand SARS-CoV-2 and develop medical countermeasures for the virus. Because the new pathogen causes serious disease for which there are no definitive treatments, biosafety level 3 (BSL3) facilities are required. It was also necessary to handle the [virus](#) with extra care because so little was known about it.

To ensure the safety of the researchers and public, Basler and his team relied on biosafety experts who oversee the high-containment core at Georgia State. The experts created a plan that identified the optimal BSL3 facility on the university's Atlanta Campus for the work, developed rigorous training for the researchers (who were already

experienced with high-containment work) and implemented procedures to enable safe and efficient work on SARS-CoV-2.

More information: Alexander S. Jureka et al. Propagation, Inactivation, and Safety Testing of SARS-CoV-2, *Viruses* (2020). [DOI: 10.3390/v12060622](https://doi.org/10.3390/v12060622)

Provided by Georgia State University

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