

Experimental COVID-19 treatment given to Trump found to relieve symptoms in macaques and hamsters

October 12 2020, by Bob Yirka



The golden hamster or Syrian hamster (*Mesocricetus auratus*). Credit: Wikipedia

A team of researchers with Regeneron Pharmaceuticals, Inc., working with the Texas Biomedical Research Institute, has found that the antibody cocktail given to President Trump was effective in reducing COVID-19 symptoms in rhesus macaques and golden hamsters. In their paper published in the journal *Science*, the group describes their experiments, which involved giving the cocktail to test monkeys and hamsters.

U.S. President Donald Trump made headlines when he announced on October 2 that he had tested positive for COVID-19. He has made headlines again in recent days as he has declared himself to be virus-free. His seemingly mystifying recovery came after the announcement that he had received an experimental antibody [cocktail](#) along with doses of vitamin D, zinc and a heartburn medicine. The experimental antibody cocktail he was given was provided courtesy of Regeneron Pharmaceuticals, Inc., a company that has been conducting research into the use of such antibody cocktails as therapies for a host of viral infections, including COVID-19. In this new effort, the researchers tested the antibody cocktail with [rhesus macaques](#) and golden hamsters.

In the first part of the study, the researchers administered the cocktail (which they call REGN-COV2) to healthy rhesus macaques. Prior research had shown that they can be infected by the SARS-CoV-2 virus, but typically exhibit only mild symptoms. Three days after receiving the cocktail, the [monkeys](#) were injected with the SARS-CoV-2 virus and then monitored to see if the treatment had any impact. They found that monkeys who had received the treatment prior to infection exhibited far fewer symptoms than a control group and had a much lower viral load.

The researchers also injected some of the monkeys with the cocktail after they were infected and found that doing so also reduced symptoms and resulted in faster viral clearance. The researchers next repeated the same experiments with golden hamsters. They, too, have been found to

be susceptible to COVID-19, but have much more severe symptoms, including major weight loss. They found that giving it to them two days before they were infected with the SARS-CoV-2 virus resulted in greatly reduced symptoms and they did not suffer weight loss. And giving it to the [hamsters](#) after an infection had set in also resulted in reduced symptoms and faster viral clearance.

The researchers suggest that REGN-COV2 may offer therapeutic benefits both as a treatment and as a preventative measure for COVID-19.

More information: Alina Baum et al. REGN-COV2 antibodies prevent and treat SARS-CoV-2 infection in rhesus macaques and hamsters, *Science* (2020). [DOI: 10.1126/science.abe2402](https://doi.org/10.1126/science.abe2402)

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Citation: Experimental COVID-19 treatment given to Trump found to relieve symptoms in macaques and hamsters (2020, October 12) retrieved 5 May 2024 from <https://medicalxpress.com/news/2020-10-experimental-covid-treatment-trump-relieve.html>

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