

## **MEDICAL BREAKTHROUGHS** **RESEARCH SUMMARY**

TOPIC: WILL COVID-19 COME BACK THIS FALL?  
REPORT: MB #4730

**BACKGROUND:** Coronaviruses are single-stranded RNA viruses that attack our upper respiratory systems. The word “corona” has a lot of different meanings, but it was chosen to describe these kinds of viruses because of the way scientists originally noted the shape and appearance of the cells under a microscope resembled that of the sun during an eclipse. The corona of the sun is the halo of light that can be observed during an eclipse once the moon has fully blocked it and is similar to the way the cells of a coronavirus appear visually. Coronaviruses are susceptible to mutation and recombination. They are highly diverse and there are currently about 40 different varieties. They usually reside in bats and birds, but easily transfer to other animals—including humans. The virus that causes COVID-19 is thought to have originated in bats and then spread to snakes and pangolins and hence to humans, but a true source has yet to be confirmed.

**CONTAGION:** The first coronaviruses known to affect humans were very mild infections, similar to the common cold. It was not until the outbreak of SARS (severe acute respiratory syndrome) or the later outbreak of MERS (the Middle Eastern respiratory syndrome) that it became clear that these viruses could have very serious ramifications for humans. These viruses are known to thrive in different climates and often why we are able to track things such as ‘flu season’, indicating that new coronaviruses could follow that pattern as well. Experts at the NIH have noticed countries in the southern hemisphere approaching their winter seasons are starting to see cases of COVID-19 appear, suggesting that this the disease could be just as seasonal as others.

(Source: <https://www.cebm.net/covid-19/coronaviruses-a-general-introduction/> )

**COVID-19:** Infection with SARS-CoV-2, the virus that causes COVID-19, can cause a mild to severe respiratory illness and include symptoms of cough, fever, and shortness of breath. The CDC has also added six more conditions that may come with the disease: chills, repeated shaking with chills, muscle pain, headache, sore throat and loss of taste or smell. Kaiser Permanente Washington Health Research Institute in Seattle funded by The National Institute of Allergy and Infectious Diseases, part of the National Institutes of Health, has begun the first phase of a clinical trial aiming to test a vaccine meant for COVID-19. They are testing for dose amounts, immune responses, and side effects. This is the first of many steps involved in evaluating it’s effectiveness and potential benefits. Several teams of doctors are working non-stop to monitor this progression and safety and hopefully produce a functional result.

(Source: <https://www.nih.gov/news-events/news-releases/nih-clinical-trial-investigational-vaccine-covid-19-begins> )

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**If this story or any other Ivanhoe story has impacted your life or prompted you or someone you know to seek or change treatments, please let us know by contacting Marjorie Bekaert Thomas at [mthomas@ivanhoe.com](mailto:mthomas@ivanhoe.com)**