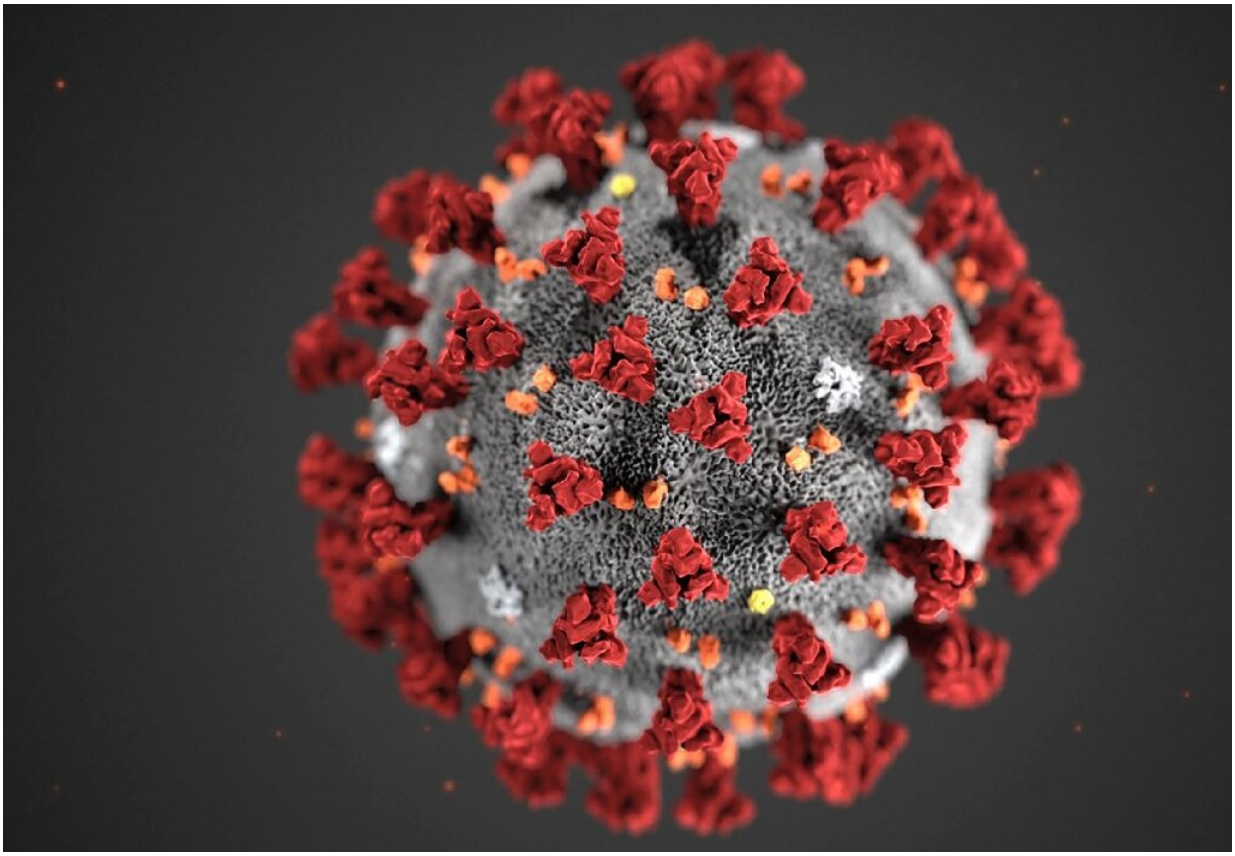
Virus mutations unlikely to mean stronger strain: experts

May 8 2020, by Amélie Bottollier-Depois



"Mutations are what happens when genomes replicate. Comes with the territory like showers with the springtime," notes William Hanage, associate professor at Harvard University

The coronavirus' constant mutation is unlikely to have changes its

potency or its contagiousness, disease experts say, despite recent research suggesting the emergence of a more virulent strain.

A pre-paper—that is, not reviewed by a collection of the researchers' peers—released last month by Los Alamos National Laboratory claimed to have identified a new strain of the virus.

A mutation on one of the virus' protein spikes made the strain currently circulating in Europe and the United States potentially more potent than the one that emerged from China at the end of last year, the authors claimed.

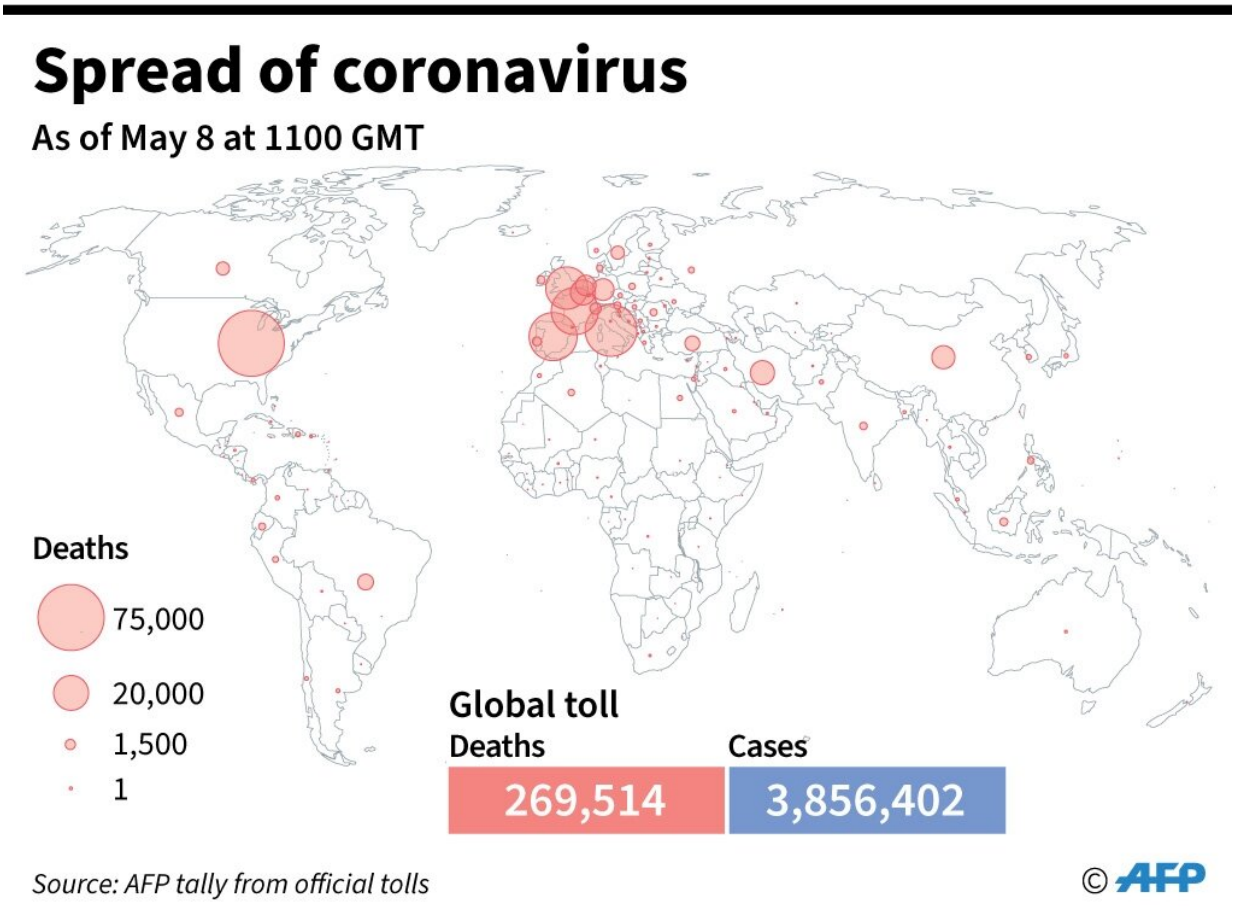
"The mutation Spike is of urgent concern; it began spreading in Europe in early February, and when introduced to new regions it rapidly becomes the dominant form," they wrote.

They said that any new strain might have implications on the efficacy of treatments or vaccines against COVID-19 currently in development.

The study made headlines but provoked calls for caution from disease experts, mainly due to the fact that the theory of increased transmissibility had not been tested in the lab.

"This variant might have been lucky and got introduced to places outside Wuhan and different approaches to social distancing early on," William Hanage, associate professor at Harvard University's T. H. Chan School of Public Health, said on Twitter.

"Essentially the virus has been mutating... That don't mean that much. Mutations are what happens when genomes replicate. Comes with the territory like showers with the springtime."



World map showing official number of coronavirus deaths per country, as of May 8 at 1100 GMT

'Speculation'

Viruses such as COVID-19 are essentially bundles of coded material—RNA—containing instructions for how to build copies of themselves.

Since they need the cells of another organism in order to replicate, tiny errors occur as the RNA is reproduced, leading to mutations.

A paper by researchers at University College London found that at least 198 sites in the virus' genome had already undergone sustained mutation.

This was "consistent with multiple introductions of the virus to regions throughout the world seeding local transmission events," the authors said.

Reacting to both the UCL and Los Alamos studies, Lawrence Young, professor of Molecular Oncology at the University of Warwick, said any talk of more virulent strains was "speculation" right now.

He noted that unlike other viral diseases such as HIV, COVID-19 doesn't appear to be mutating at a high rate.

"There is currently no compelling evidence that the mutations have had a significant effect on how the virus affects us," he said.