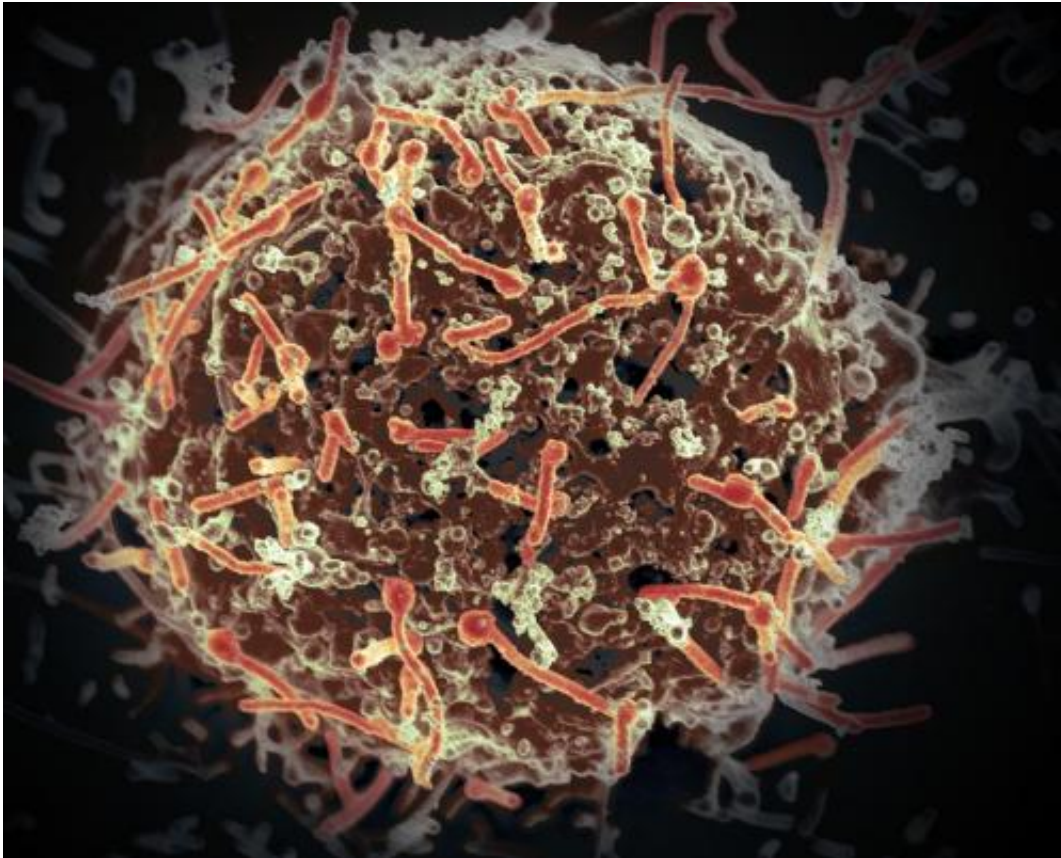


New study eases fears of airborne Ebola

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The Ebola virus, isolated in November 2014 from patient blood samples obtained in Mali. The virus was isolated on Vero cells in a BSL-4 suite at Rocky Mountain Laboratories. Credit: NIAID

At the peak of the Ebola epidemic last fall came a frightening new possibility: a mutation that could allow the disease to spread through the air. Now University of Florida researchers have dispelled this concern

using data from current and past Ebola outbreaks.

The team—led by associate professor Marco Salemi of UF's Department of Pathology and Emerging Pathogens Institute, in collaboration with the Italian Institute of Health—revealed its findings in a study published today in Nature's *Scientific Reports*.

In August, an international research team found that [genetic changes](#) in the [virus](#) were occurring twice as fast as previously seen. In September, a U.S. researcher caused a stir by suggesting that the virus could mutate to become transmissible through the air.

In the current study, the research team looked at samples from patients and great apes collected during Ebola epidemics from 1976 through 2014. They discovered that most genetic changes are lost between epidemic waves and found little evidence to support the evolution of a more powerful or transmissible virus. That's good news not only for Central and West Africa, but for researchers developing tests, vaccines and treatments for Ebola.

While concern about airborne Ebola may persist, the likelihood of the virus becoming an airborne infection is extremely low, says Taj Azarian, the lead author of the study.

"We know of no virus that has radically changed its mode of transmission due to genetic mutations," he said. "It seems the Ebola virus is more stable than earlier studies suggested."

More information: "Impact of spatial dispersion, evolution, and selection on Ebola Zaire Virus epidemic waves." *Scientific Reports* 5, Article number: 10170 [DOI: 10.1038/srep10170](https://doi.org/10.1038/srep10170)

Provided by University of Florida

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