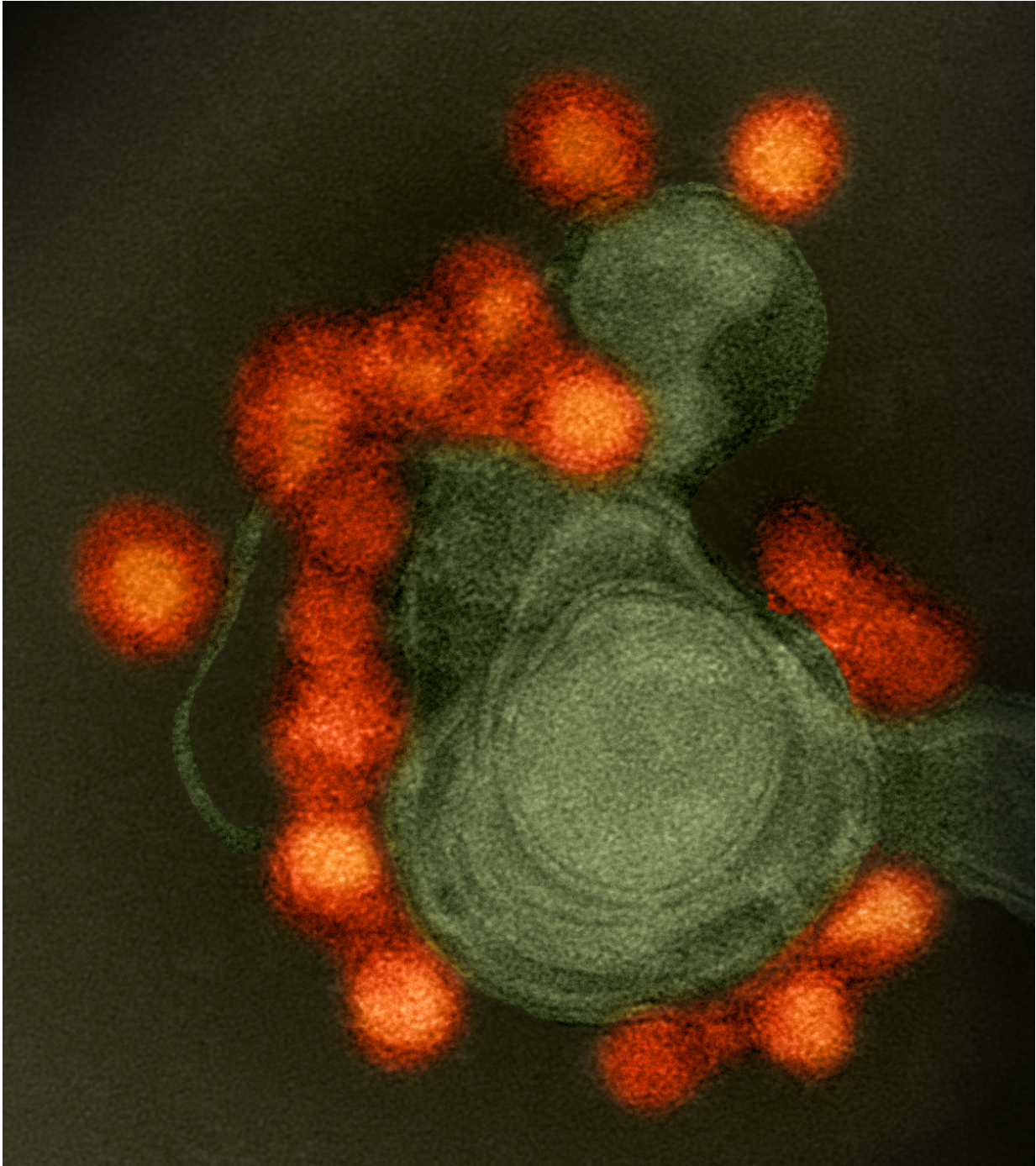


Researchers identify potential Zika virus target

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Transmission electron microscope image of negative-stained, Fortaleza-strain Zika virus (red), isolated from a microcephaly case in Brazil. The virus is associated with cellular membranes in the center. Credit: NIAID

New research provides insights into why infection with Zika virus after birth generally causes only mild symptoms, whereas devastating fetal malformations can develop when infection occurs during pregnancy.

Healthy people are protected by antiviral factors of our innate immune system. Investigators have now shown that reducing levels of one antiviral factor called interferon-induced transmembrane protein 3 (IFITM3) makes cultured cells highly sensitive to Zika virus infection.

The team found that IFITM3 normally stops multiplication of the virus in human cells at an early step, preventing the [infected cells](#) from "implosive" [cell death](#). Therefore, drugs that block this cell death pathway might be helpful for preventing the effects of Zika virus infection during pregnancy.

"We describe a striking succession of events that may lead to the death of cells infected with Zika virus. Hopefully, the cells are equipped with antiviral gatekeepers that allow the host to control the infection," said Dr. Olivier Schwartz, senior author of *The EMBO Journal* study.

More information: *EMBO Journal* (2017). [DOI: 10.15252/emj.201695597](#)

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