

# Yaravirus

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**Context:** Scientists have identified an enigmatic virus whose genome seems to be almost entirely new to science

- A virus is essentially a small piece of DNA or RNA inside a protein particle or capsid. The DNA or RNA code for the proteins by which the virus acts.
- Almost every part of the ecosystem on Earth is susceptible to viruses—animals, plants, bacteria, fungi, amoeba, pretty much everything.
- Many scientists don't classify viruses as a form of life, despite its ability to infect, duplicate and evolve. Because it cannot reproduce by itself but requires the machinery of the cells it infects to reproduce, most scientists don't classify it as a form of life.
- Yaravirus was discovered in Lake Pampulha, an artificial lake in Belo Horizonte, a city in Brazil, and infects amoeba.
- It is small virus with size of 80 nm
- Over 90 percent of Yaravirus genes had never been described before, constituting what are known as 'orphan genes'. They are genes without detectable homologues in other lineages
- Only six genes in the yaravirus found bore a distant resemblance to known viral genes documented in public scientific databases,
- The virus does not infect human cells

Other

- In October 2019, researchers from the Tokyo University of Agriculture and Technology (TUAT) identified a new type of virus found in pig feces