

Major review of Zika evidence highlights lack of understanding

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A major review of the Zika virus has concluded that further research to understand the nature of the virus is critical to developing antiviral treatments and vaccines. The paper, published in the journal *Veterinary Quarterly*, considers the breadth of current research and highlights a lack of understanding of the nature of the virus. The research team, based in India and the USA, concludes that whilst prevention and control measures are mainly aimed at the mosquitoes which spread the disease, further research is required into this relatively new pathogen.

Whilst the Zika virus was first isolated in 1947, it was initially classified as an 'innocuous' pathogen. Following the outbreak in Brazil during early 2015, it has spread rapidly across South and Central America, which has led to the World Health Organization declaring in February 2016 that the virus is a 'Public Health Emergency of International Concern.' With Rio de Janeiro, Brazil, due to host the summer Olympics later this year, the virus is attracting the concern of participating athletes and visitors alike.

In this paper, the researchers bring together the current evidence and understanding of the Zika virus. They raise concerns that as the vector mainly responsible for spreading the virus, the *Aedes* genus of mosquito, is also responsible for spreading many other diseases, such as Dengue and Chikungunya, it may not take long for Zika to spread to the remaining parts of the world. Whilst Zika has been shown to be transmitted to babies in the womb, via blood transfusion and through sexual intercourse, the researchers do believe mosquito control should be a priority.

The major areas for research raised in the paper relate to the very nature of the virus itself. The authors highlight the lack of genetic understanding of the virus; in particular what mutation has caused the virus to become so virulent. They also suggest that understanding the interactions between the virus and humans is key, particularly to develop a test that allows for the virus to be quickly identified from other similar viruses.

Whilst the questions are often easy to ask, finding the solutions is not always straightforward. However, the researchers believe that microscopy revealing the structure of the mature [virus](#), and increased sharing of data between researchers and countries would prove good starting points.

More information: Raj Kumar Singh et al. Zika virus – emergence, evolution, pathology, diagnosis, and control: current global scenario and future perspectives – a comprehensive review, *Veterinary Quarterly* (2016). [DOI: 10.1080/01652176.2016.1188333](https://doi.org/10.1080/01652176.2016.1188333)

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