10 things we've discovered about viruses in 2017

1 Ebola virus may have ocular consequences

Researchers from the University of Liverpool (UK) conducted a study of clinical sequela in Ebola survivors discovering a novel retinal lesion.

2 Genome analysis of Ebola virus genomes can uncover epidemiological patterns

International collaborative research analyzed the entire database of Ebola virus genomes from the 2013–2016 outbreak and uncovered insights into driving factors such as cities.

3 Plants could be used to produce polio vaccines

A new vaccine for polio was been developed by using plants to reproduce virus-like particles – this avoids the problematic use of live viruses.

4 HIV can also persist in macrophages

A new cell reservoir for HIV was uncovered as researchers discovered that HIV can persist not only in T cells but also in macrophages.

5 The CRISPR/Cas9 system could provide a curative therapy for HIV

A study demonstrated that excision of HIV-1 DNA from infected cells in animal hosts could eliminate further infection – the first to do so *in vivo*.

6 Zika virus could help us combat brain tumours

Research has demonstrated that Zika selectively targets and kills glioblastoma stem cells, indicating it may have promise as a novel therapeutic for this aggressive form of brain cancer.

7 Zika could be rapidly detected using a LAMP test

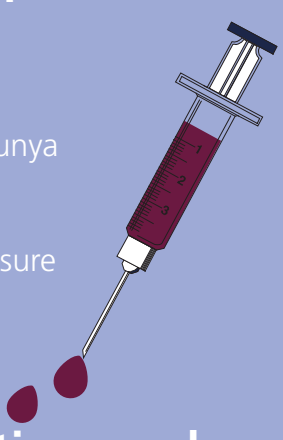
Loop-mediated isothermal amplification can detect Zika virus in mosquitoes and bodily fluids in addition to distinguishing between African and Asian strains of the virus, according to research.

8 The impact of climate change may be greater than first thought

A study assessing the impact of climate change on pathogens reported it could impact the burden of infectious diseases – especially mosquito-borne viruses – potentially altering their distribution, incidence and severity.

9 We came one step closer to a chikungunya vaccine

A prophylactic vaccine against chikungunya virus entered Phase II trials in a disease-endemic area. The trial aims to evaluate the influence of previous exposure to chikungunya on the safety and immunogenicity of the vaccine



10 Dengue infection can be monitored in real-time

Positron emission tomography was used to observe murine dengue infection in real-time, presenting a non-invasive method to monitor infections and assess the effectiveness of treatments.

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Sources:

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