

# New rabies virus discovered in Tanzania

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(Medical Xpress) -- A new type of rabies virus has been discovered in Tanzania by scientists from the University of Glasgow and the Animal Health and Veterinary Laboratories Agency (AHVLA).

The virus was identified as part of a rabies surveillance research project funded by the Wellcome Trust and was investigated following an unusual incident when a child was attacked by a civet – a cat-like nocturnal mammal – in a part of the Serengeti which was thought to be rabies-free.

The samples that were collected tested positive for rabies at the Central Veterinary Laboratory, Dar es Salaam. Subsequent genetic tests showed that the virus was a new type of rabies virus that had not been previously described, but was similar to a bat [rabies virus](#) isolated in the Caucasian region of Eastern Europe.

Scientists believe the new virus is likely to originate in bats and that cross-over infection to civets and other mammalian species is likely to be relatively rare. However further studies are planned to determine the extent of infection and the degree of risk to human and animal health.

Professor Sarah Cleaveland, of the Institute of Biodiversity, [Animal Health](#) and Comparative Medicine at the University of Glasgow, said: “The vast majority of human deaths from rabies are caused by bites from domestic dogs with rabies, which can be effectively controlled through mass dog vaccination campaigns.

“This new virus is unlikely to pose a threat to humans on the scale of that

of dog rabies. However this research highlights the need for vigilance and maintaining good levels of surveillance.

“The study also demonstrates how powerful new genetic tools are revealing the complexity of emerging viruses at the wildlife –human interface.”

Professor Anthony Fooks, Head of the Wildlife Zoonoses and Vector-Borne Diseases Research Group at AHVLA, added: "AHVLA's international role as a reference laboratory provides the ability to respond to new disease threats as pathogens emerge. This study typifies the multi-disciplinary nature of our consortium and of the diversity of skills and international reputations held by many of the scientists from the UK, USA and [Tanzania](#) who are working together to study infectious diseases that pose a risk to animal and human health.

"Due to the highly divergent nature of this novel virus it is not clear whether current human and animal vaccines will confer protective immunity and are effective following an exposure."

The discovery of rabies in the civet following the attack on the child in the Ikoma ward of the Serengeti on 11 May 2009 was highly unexpected as the Serengeti National Park has been free of rabies since 2000 as a result of domestic dog vaccination campaigns around the park. The characterisation of the virus in this study indicates that this new case did not result from a breach in the dog vaccination barrier, but from a new source of infection.

The discovery is reported in a paper entitled ‘Ikoma Lyssavirus, Highly Divergent Novel Lyssavirus in an African [Civet](#)’, in the journal *Emerging Infectious Diseases*.

**More information:** Marston D, Horton DL, Ngeleja C, Hampson K,

McElhinney LM, Banyard AC, et al. Ikoma lyssavirus, highly divergent novel lyssavirus in African civet. *Emerg Infect Dis.* 2012.  
[dx.doi.org/10.3201/eid1804.111553](https://doi.org/10.3201/eid1804.111553)

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