

Researchers find equine influenza virus in camels

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University of Florida researchers have found evidence that an influenza A virus can jump from horses to camels – and humans could be next.

The One Health Center of Excellence for Research and Training in UF's Emerging Pathogens Institute, in collaboration with U.S. and Mongolian institutions, has identified the first known case of an equine [influenza virus](#) in camels. Their findings will be published in the December issue of *Emerging Infectious Diseases*, but an ahead of print version of the report is available [online](#).

"Over the last 10 years, we've been amazed at all the cross-species jumps of influenza. Now we're finding yet another," said Gregory C. Gray, center director and environmental and global health professor in UF's College of Public Health and Health Professions.

Although there is no immediate risk, the inter-mammalian transmission of the virus is a major concern for [public health](#) researchers interested in controlling the threat of [pandemic influenza](#), he said.

Camels have recently been implicated in the transfer of the deadly Middle East [respiratory syndrome virus](#) to man. This new discovery further demonstrates the potential role of camels in the ecology of [zoonotic diseases](#), which are passed from animals to humans. Other examples include SARS virus, Ebola virus, and some harmful strains of *E. coli*.

"Similar influenza viruses can move from horses to humans," Gray said. "If a camel has it, why couldn't they share it with humans?"

The study took place in 2012 in three Mongolian aimags, or provinces, where free-range camels and horses intermingle.

Hundreds of camel and horse nasal samples were collected, and one [camel](#) specimen was confirmed to have influenza A. Tests found it matched viruses in Mongolian horses.

This also illustrates the importance of improved surveillance for zoonotic diseases in camels to better understand the potential risk to humans, he said.

"It adds another potential exposure to man where a novel virus could hide out, if you will, in camels and later surprise us and infect humans," Gray said.

This could affect animal caretakers, especially in places where people have close contact with camels such as the Middle East, Africa, and Australia.

More research is necessary to fully understand the virus – for example, how it's transmitted – but Gray said the discovery "adds another dimension to what we do."

"Knowing that influenza virus can jump between horses and camels will reshape how we understand the ecology of novel influenza viruses which may affect man," he said.

Provided by University of Florida

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