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## **Call for global monitoring of infectious diseases in dogs and cats**

Most emerging infectious diseases of humans come from animals. International health agencies monitor these diseases, but they do so only for humans and livestock, not for companion dogs and cats. A new study recommends a global system is needed to monitor infectious diseases of companion dogs and cats.

The study, led by Michael Day, Professor of Veterinary Pathology in the School of Veterinary Sciences at the University of Bristol, lists key infectious diseases that may be transmitted between dogs and cats and man ('zoonotic diseases'). It is well recognised that most of the major new diseases of mankind will have an animal origin and dogs and cats are a potential source of such 'emerging diseases'.

The World Small Animal Veterinary Association (WSAVA) One Health Committee, which promotes the closer integration of human and animal healthcare ('One Health') in collaboration with the US Centers for Disease Control and Prevention (CDC), the World Organisation for Animal Health (OIE) and the World Health Organization (WHO), recommends in the paper a co-ordinated global disease monitoring system is established for veterinarians who work in small companion animal practice.

However, development of such a scheme would require significant political will, scientific application and financial support that could be achieved through a public-private partnership. The knowledge gained through surveillance would permit more effective global control of small companion animal zoonoses and so reduce the risks inherent within this most fundamental of human relationships.

Canine rabies virus infection, one of the diseases listed in the paper, is estimated to kill a minimum of 55,000 people in Africa and Asia each year.

Michael Day, Professor of Veterinary Pathology in the School of Veterinary Sciences, said: "The number of small companion animals is significant. For example there are an estimated eight to ten million dogs living in up to 31 per cent of UK homes and in the USA, 72 million dogs in 37 per cent of homes.

"In developed countries the relationship between man and dogs and cats has deepened, with these animals now closely sharing the human indoor environment. The benefits of pet ownership on human health, well-being and development are unquestionable, but as dogs and cats have moved from the barn, to the house, to the bedroom, the potential for disease spread to humans increases. Control of diseases among dogs and cats is a good way to prevent spread to humans."

Small companion animals, most typically dogs and cats, are kept by people for companionship or a range of utilitarian purposes. Dogs and cats have a close relationship

with their human owners and play an important role in the cultures of both developed and developing communities. The social and societal benefits of pet ownership are significant, with dogs now participating in programmes in institutions such as schools, prisons and hospitals, in addition to their role in family life.

In human, livestock and wildlife health there are programmes of active surveillance for infectious disease, which monitor the global distribution and movement of key infectious agents. For example, the WHO monitors human influenza virus infection through a network of 111 centres in 83 countries. In contrast, there is no such monitoring for the infections that may be transmitted between small companion animals and man.

**Paper:** *Surveillance of zoonotic infectious diseases transmitted by small companion animals*, Day M J, Breitschwerdt E, Cleaveland S, Karkare U, Khanna C, Kirpensteijn J, Kuiken T, Lappin MR, McQuiston J, Mumford E, Myers T, Palatnik-de-Sousa CB, Rubin C, Takashima G, Thiermann A. *Emerging Infectious Diseases*, volume 18, issue 12, December 2012.

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#### **Notes to editors:**

The authors are members of the WSAVA One Health Committee, which is an independent advisory group that receive financial support through the WSAVA Foundation.

Professor Michael Day is Professor of Veterinary Pathology at the University of Bristol, UK. His primary research interest is companion animal immune-mediated and infectious diseases.

A copy of the paper is available at: <[http://wwwnc.cdc.gov/eid/article/18/12/12-0664\\_article.htm](http://wwwnc.cdc.gov/eid/article/18/12/12-0664_article.htm)>

#### **About the School of Clinical Veterinary Sciences**

Research at the University of Bristol's School of Clinical Veterinary Sciences is focused in the areas of Animal Welfare and Behaviour, Comparative and Clinical Research, and Infection and Immunity, complemented by quantitative expertise in Biostatistics, Epidemiology and Mathematical Ecology. Research ranges from fundamental to applied and is relevant to over-arching issues such as Food Security and One Health, concepts that the School's research embraces through collaborations with scientists from other schools within the Faculties of Medical and Veterinary Sciences, Medicine and Dentistry, and Science and other regional institutes and organisations.

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