THE UNIVERSITY of WISCONSIN MADISON

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To Whom It May Concern:

Since Louis Pasteur developed the first rabies vaccine in 1885, widespread vaccination against rabies virus has dramatically decreased the prevalence of this deadly disease in human and domestic animal populations in developed countries. In the United States, mandatory vaccination of domestic juvenile dogs and cats and vaccination of humans at risk (such as veterinarians and animal control officers) has provided a high level of population immunity.

Currently, rabies vaccines for non-human animals are tested for efficacy by challenge of immunity tests in small groups of experimental animals (as outlined in the 9CFR §113.209). Briefly, vaccinated and unvaccinated control animals are exposed to virulent rabies virus, and protection from disease is compared among the groups. Human rabies vaccines are not tested in this way, for obvious reasons.

As outlined by the Center for Disease Control (CDC), to determine if vaccinated humans at high risk of rabies exposure are actually protected, antibody titer testing is performed every two years. If a certain level of antibody is detected, the person is considered protected against rabies and is not revaccinated. Anecdotal evidence of vaccinated humans maintaining protective antibody against rabies virus for decades after initial vaccine series is common.

In the United States, most localities require revaccination of adult pets at yearly or triennial intervals, without regard for the patient's antibody status. This represents a scientifically flawed approach! The main objective of vaccination must be to safely provide protection from disease, and should not be done to simply meet administrative requirements or deadlines.

Rabies vaccination of pets, while essential to population health, is not without risks. Adverse events, such as development of ischemic dermatopathy (an ulceration and scarring of skin at vaccine site and tops of the ears) or death from anaphylaxis (a rapid systemic allergic reaction), have been linked to rabies vaccine administration. While these events are uncommon, for those animals that are already protected via antibody against rabies as determined by an antibody titer test, the risk of these adverse events is unwarranted.

Canine studies funded by the Rabies Challenge Fund and performed in collaboration with the University of Georgia have confirmed that dogs that have a detectable rabies antibody titer are resistant to disease caused by experimental challenge with virulent rabies virus for as long as 7 years after two doses of rabies vaccine.

Rabies antibody titer testing is cost effective and is readily available from several veterinary diagnostic laboratories in the US. For example, Kansas State Veterinary Diagnostic Laboratory offers this test for approximately $40. A scientifically sound approach to rabies re-vaccination in adult pets would be to first determine antibody status and risk of infection, and only then administer booster vaccination if needed, as is the standard of care for those human beings who also require protection from rabies.

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Member American Animal Hospital Association (AAHA) Vaccine Guidelines Group

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