



# Assay for Propensity for Canine Malignant Hyperthermia

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**WARF: PO1177US**

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**The Wisconsin Alumni Research Foundation (WARF) is seeking commercial partners interested in developing a method of determining whether a canine is susceptible to malignant hyperthermia.**

## OVERVIEW

Malignant hyperthermia (MH) is a disorder of skeletal muscle that occurs following exposure to a volatile anesthetic or depolarizing muscle relaxant. It is a problem in both humans and pigs, and has also been reported in dogs.

In humans and swine, MH is caused by mutations in the ryanodine receptor, a skeletal muscle calcium release channel. The specific mutation responsible for MH in swine and some humans does not cause the disorder in dogs.

## THE INVENTION

UW-Madison researchers have identified the mutation that causes MH in dogs and developed a method of determining whether a canine is susceptible to malignant hyperthermia. To determine if a dog is susceptible, a nucleic acid sample is obtained and examined for the presence or absence of a T1640C mutation. If the mutation is present, the canine is susceptible to MH.

## APPLICATIONS

- Anesthesia in dogs

## KEY BENEFITS

- May reduce surgical death in canines by allowing the veterinarian to assess anesthetic risk before surgery and select safer anesthetics
- All dog breeds (more than 300) can potentially benefit

## THE WARF ADVANTAGE

Since its founding in 1925 as the patenting and licensing organization for the University of Wisconsin-Madison, WARF has been working with business and industry to transform university research into products that benefit society. WARF intellectual property managers and licensing staff members are leaders in the field of university-based technology transfer. They are familiar with the intricacies of patenting, have worked with researchers in relevant disciplines, understand industries and markets, and have negotiated innovative licensing strategies to meet the individual needs of business clients.



## ADDITIONAL INFORMATION

### Tech Fields

Veterinary - Companion animals

## CONTACT INFORMATION

For current licensing status, please contact Emily Bauer at [emily@warf.org](mailto:emily@warf.org) or 608-960-9842.

