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## MDR-1 GENOTYPE RESULTS

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**MDR1\* GENOTYPING RESULTS**

**7/3/2008**

**MDR1- 10923**

**Pam Bender**

**Kingman, AZ**

**MDR1 TEST RESULTS FOR:**

**Dog Name: Bold Legends Americas Most Wanted**

**Dog Breed: Miniature Australian Shepherd**

**Test Result: Normal/Normal**

**Explanation of test results:**

**Normal/Normal-** These dogs do not carry the mutation, and will not pass on the mutation to their offspring. These dogs would not be expected to experience unexpected adverse drug reactions to normal doses of ivermectin, loperamide (Imodium®), and some anticancer drugs.

**Mutant/Mutant-** These dogs carry the mutation and can not pass on a normal gene to their offspring. These dogs would be expected to experience toxicity after normal doses of loperamide (Imodium®), some anticancer drugs, and high doses of ivermectin (greater than 50 micrograms per kilogram).

**Mutant/Normal-** These dogs carry the mutation and may pass on the mutant gene to their offspring. These dogs may experience toxicity after normal doses of loperamide (Imodium®), some anticancer drugs, and high doses of ivermectin (greater than 50 micrograms per kilogram).

**A current list of problem drugs for dogs with the MDR1 mutation may be found at this web address:**

<http://www.vetmed.wsu.edu/VCPL>

*Jonathan Minch*

**Jonathan Minch**

**Veterinary Clinical Pharmacology Laboratory Manager**

PCR for this service is performed pursuant to an agreement with Roche Molecular Systems, Inc. MDR1 testing covered by US patents 6,790,621 and 7,393,643. Foreign patents pending.

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