

NCSU, COLLEGE OF VETERINARY MEDICINE  
VETERINARY GENETICS LABORATORY  
<http://www.cvm.ncsu.edu/vhc/csds/vcgl/index.html>  
RB228 1060 William Moore Drive  
RALEIGH, NC 27607  
Phone: 9195133314 Fax:

**Owner:** SHIRLEY BELL  
CORBELL, ON POH1K0

**Accession Number:** CG13-00955

**Veterinarian:** DR.  
BELL KENNELS  
3812 HWY 17E  
CORBELL, ON POH1K0  
Phone 7057523190  
Fax

**Received:** 06/03/2013 **Reported:** 06/05/2013  
**Species:** CANINE  
**Breed:** BOXER  
**Sex:** M **Age:** 2Y  
**Animal ID:** BAR-K'S MOONSHINE AT BELLCREST  
**Case Ref#:**  
**Specimen:** SWB

**Results:**  
**BOXER ARVC**  
**GENETIC INFO**

Negative

ARRHYTHMOGENIC RIGHT VENTRICULAR CARDIOMYOPATHY (ARVC) IS A FAIRLY COMMON FORM OF HEART DISEASE IN THE BOXER DOG. IT IS INHERITED AND OUR LABORATORY HAS IDENTIFIED A MUTATION RESPONSIBLE FOR THE GENE IN SOME BOXERS. HOWEVER, IT SHOULD BE NOTED THAT IN HUMAN BEINGS WITH THE SAME DISEASE, THERE ARE MANY DIFFERENT GENETIC MUTATIONS WHICH CAN CAUSE THIS DISEASE. WE DO NOT YET KNOW IF THIS IS THE ONLY MUTATION IN THE BOXER OR IF THERE WILL BE MANY DIFFERENT MUTATIONS. PLEASE KEEP IN MIND THAT WE ARE CONTINUALLY LEARNING ABOUT THIS DISEASE AND RECOMMENDATIONS WILL BE ALTERED AS WE OBTAIN MORE INFORMATION. CURRENTLY OUR INTERPRETATION OF THE TEST IS:

NEGATIVE RESULTS:  
THE ABSENCE OF THE MUTATION IN THIS DOG, DOES NOT MEAN THAT IT WILL NEVER DEVELOP THE DISEASE. IT MEANS THAT IT DOES NOT HAVE THE ONLY KNOWN MUTATION THAT CAN CAUSE THE DISEASE IN THE DOG AT THIS TIME.

POSITIVE RESULTS:  
DOGS THAT ARE POSITIVE FOR THE TEST WILL NOT NECESSARILY DEVELOP SIGNIFICANT HEART DISEASE AND DIE FROM THE DISEASE. SOME DOGS WILL DEVELOP A VERY MILD FORM OF THE DISEASE AND WILL LIVE QUITE COMFORTABLY, SOME MAY NEED TREATMENT.

IMPORTANTLY, BREEDING DECISIONS SHOULD BE MADE CAREFULLY. AT THIS TIME WE HAVE DO NOT YET KNOW WHAT PERCENTAGE OF BOXERS WILL BE POSITIVE FOR THE MUTATION. HOWEVER, REMOVAL OF A SIGNIFICANT NUMBER OF DOGS FROM THE BREEDING POPULATION COULD BE VERY BAD FOR THE BOXER DOG BREED. REMEMBER THAT DOGS THAT CARRY THIS MUTATION ALSO CARRY OTHER IMPORTANT GOOD GENES THAT WE DO NOT WANT TO LOSE FROM THE BREED.