

UPDATE ON JRD TESTING FOR MINIATURE SCHNAUZERS

To all participants in the JRD testing in miniature schnauzers:

We encountered technical difficulties with the JRD test specifically in your breed. These problems have been remedied, and the results have revealed several important findings.

1. The mode of inheritance of JRD in your breed is recessive with variable penetrance. Thus expressivity of this mutation is very low in your breed. However, it is extremely likely that a seemingly normal individual may show pathology at the biopsy level showing signs of fetal glomeruli. The lack of expressivity may be due to a resistant genetic background.

We are now finding this mode of inheritance in several other breeds, that we will be offering testing for in the near future.

Complete penetrance means that all individuals with the mutation (whether it is a recessive or dominant mutation) will show the clinical signs of the disease. Incomplete penetrance means that not all individuals with the mutation will show clinical signs of disease.

2. The most important finding in your breed with these results is the incredible lack of genetic diversity.

With the corrected test , and 124 Miniature Schnauzers tested, only 5 carriers were found, and the rest are homozygous mutant allele (2 copies of the mutation: potentially affected).

As I understand the history of your breed, there hasn't been a significant importation since the 1920's in terms of overall impact in the gene pool. All champion lines trace hundreds (thousands?) of times over to the breed's supersire born in 1945, Ch.Dorem Display. The founding import bitch Amsel appears in his pedigree over 60 times.

For those of you who wish to continue to find at least carriers, you will be hopefully contributing to the overall health of your breed in attempting to revive this almost extinct chromosome, as well as eliminating a genetic disorder. Participation amongst your members has been limited to only 18. We have made every effort to test as many Miniature Schnauzers as we had samples for. If you have not received results for some of your dogs, please contact DOGenes at :info@dogenes.com to request extra test kits.

For more information on genetic diversity, and how you can proceed, please read the articles on the Canine Diversity Project website at:

<http://www.canine-genetics.com/>