# **GENETIC ANALYSIS REPORT**

# **OWNER'S DETAILS**

Mr H and Mrs M Babington 6 Evans Street West Pymble, NS 2073



Add: P.O. Box 110 St Kilda 3182 VIC Ph: +61 3 9534 1544 Fax: +61 3 9525 3550 email: info@orivet.com.au website: www.orivet.com.au

A.B.N. 8 722 516 58 99

# **ANIMAL'S DETAILS**

Registered Name:Guanjun Arria The SuperiorPet Name:ArriaBreed:Toy PoodleDate of Birth / Age:

15-065581

Andrew Morgan

Registration No: Microchip No: Sex: Colour: 2100435807 900006000254616 Female

# **COLLECTION DETAILS**

Case Number: Collected By:

Date of Test: Approved Coll. Mthd.: 10/11/15 Yes

Sample with Lab ID Number 15-065581 was received at Orivet Genetics, DNA was extracted and analysed with the following results reported:

DNA PROFILE The DNA Profile below represents the genetic identification of Guanjun Arria The Superior

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SNP01	SNP02	SNP03	SNP04	SNP05	SNP06	SNP07	SNP08	SNP09	SNP10	SNP11
AG	TT	GA	CC	GC	CC	GG	GG	GG	AA	GA
SNP12	SNP13	SNP14	SNP15	SNP16	SNP17	SNP18	SNP19	SNP20	SNP21	SNP22
GG	GG			TT	CC	GT	TT	CC	CC	CC
SNP23	SNP24	SNP25	SNP26	SNP27	SNP28	SNP29	SNP30	SNP31	SNP32	SNP33
TT	CC	AG		AG	GG	TT	GG	CC	AA	GG
SNP34	SNP35	SNP36	SNP37	SNP38	SNP39	SNP40	SNP41	SNP42	SNP43	SNP44
TT	CA	GA	GT	TT	TT	CC	GG	CG	CC	GA
SNP45	SNP46	SNP47	SNP48	SNP49	SNP50	SNP51	SNP52	SNP53	SNP54	SNP55
CA	AG	CC	CC	AA	GG	GG	CC	GC	CC	GT
SNP56	SNP57	SNP58	SNP59	SNP60	SNP61	SNP62	SNP63	SNP64	SNP65	SNP66
TT	CC	TT	TC	TT	GA	CC	CC	CC	GT	TA
SNP67	SNP68	SNP69	SNP70	SNP71	SNP72	SNP73	SNP74	SNP75	SNP76	SNP77
GA	TT	TC	TC	GG	GA	CC	CA	TC	TT	TT
SNP78	SNP79	SNP80	SNP81	SNP82	SNP83	SNP84	SNP85	SNP86	SNP87	SNP88
	TT	AA	GG	СТ	СТ	GG	AA	CC	GA	GG



# **RESULTS REVIEWED AND CONFIRMED BY:**

~ flitte Dr. Noam Pik BVs MDSV

George Sofronidis BSc (Hons)

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Collected By:	Andrew Morgan	

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 DISEASE(S):
 DEGENERATIVE MYELOPATHY - NORMAL / CLEAR / NEGATIVE (NO VARIANT DETECTED)

 PROGRESSIVE ROD CONE DEGENERATION - PRA - NORMAL / CLEAR / NEGATIVE (NO VARIANT DETECTED)

 VON WILLEBRAND'S DISEASE TYPE I - NORMAL / CLEAR / NEGATIVE (NO VARIANT DETECTED)

 TRAIT(S):
 A-LOCUS AGOUTI - at/at - TAN POINTS-TAN POINTS MAY BE BRINDLED (SEE K LOCUS)

 B (TYRP1 LOCUS) BROWN/CHOCOLATE - BB - DOES NOT CARRY BROWN or CHOCOLATE

 DILUTE MLPH GENE (BLUE/GREY) - CARRIER Dd (CARRIER of DILUTE WILL HAVE NORMAL PIGMENT)

 K-LOCUS (DOM BLACK/WILD TYPE) - KK - DOMINANT BLACK WILL NOT BE BRINDLED or EXPRESS AGOUTI

 E (EXTENSION) LOCUS MC1R - ee - YELLOW, GOLDEN, CREAM, WHITE or APRICOT



**RESULTS REVIEWED AND CONFIRMED BY:** 

N flitte Dr. Noam Pik BVs MDSV

George Sofronidis BSc (Hons)

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The terms below are provided to help clarify certain results phrases on your genetic report. The phrases below are those as reported by Orivet and may vary from one laboratory to the other.

## NORMAL/CLEAR/NEGATIVE - NO VARIANT DETECTED

No presence of the variant (mutation) has been detected. The animal is clear of the disease and will not pass on any disease-causing mutation.

#### **CARRIER - ONE COPY OF THE VARIANT DETECTED**

This is also referred to as HETEROZYGOUS. One copy of the normal gene and copy of the affected (mutant) gene has been detected. The animal will not exhibit disease symptoms or develop the disease. Consideration needs to be taken if breeding this animal - if breeding with another carrier or affected or unknown then it may produce an affected offspring.

## AFFECTED/POSITIVE FOR THE VARIANT

Two copies of the disease gene variant (mutation) have been detected also referred to as HOMOZYGOUS for the variant. The animal may show symptoms (affected) associated with the disease. Appropriate treatment should be pursued by consulting a Veterinarian.

#### AFFECTED - HETEROZYGOUS ONE COPY (AUTOSOMAL DOM)

Also referred to as POSITIVE ONE COPY or POSITIVE HETEROZYGOUS. This result is associated with a disease that has a dominant mode of inheritance. One copy of the normal gene (wild type) and affected (mutant) gene is present. Appropriate treatment should be pursued by consulting a Veterinarian. This result can still be used to produce a clear offspring.

#### AFFECTED - HOMOZYGOUS TWO COPIES (AUTOSOMAL DOM)

Also referred to as POSITIVE HOMOZYGOUS. Two copies of the disease gene variant (mutant) have been detected and the animal may show symptoms associated with the disease. Please Note: This disease has dominant mode of inheritance so if mated to a clear animal ALL offspring with be AFFECTED – HETEROZYGOUS ONE COPY.

## NORMAL BY PARENTAGE HISTORY

The sample submitted has had its parentage verified by DNA. By interrogating the DNA profiles of the Dam, Sire and Offspring this information together with the history submitted for the parents excludes this animal from having this disease. The controls run confirm that the dog is NORMAL for the disease requested.

## NORMAL BY PEDIGREE

The sample submitted has had its parentage verified by Pedigree. The pedigree has been provided and details (genetic testing reports) of the parents have been included. Parentage could not be determined via DNA profile as no sample was submitted.

#### NO RESULTS AVAILABLE

Insufficient information has been provided to provide a result for this test. Sire and Dam information and/or sample may be required. This result is mostly associated with tests that have a patent/license and therefore certain restrictions apply. Please contact the laboratory to discuss.

## **DNA PROFILE**

Also known as a DNA fingerprint. This is unique for the animal. No animal shares the same DNA profile. An individual's DNA profile is inherited from both parents and can be used for verifying parentage (pedigrees). This profile contains no disease or trait information and is simply a unique DNA signature for that animal.

#### INDETERMINABLE

The sample submitted has failed to give a conclusive result. This result is mainly due to the sample failing to "cluster" or result in the current grouping. This will be repeated and looked at manually; if a result cannot be determined, a recollection may be requested.

## PARENTAGE VERIFICATION

## QUALIFIES/CONFIRMED or DOES NOT QUALIFY/EXCLUDED

Parentage is determined by examining the markers on the DNA profile. A result is generated and stated for all DNA parentage requests. Parentage confirmation reports can only be generated if a DNA profile has been carried out for Dam, Offspring and possible Sire/s.

#### PENDING

Results for this test are still being processed. Some tests are run independently and are reported at a later date. When completed, the result will be emailed.

#### APPROVED COLLECTION METHOD (YES)

The sample submitted for testing HAS met the requirements recommended by member bodies for the DNA collection process. The animal has been identified via its microchip number (Positive ID) and collected by a Veterinarian or Approved Collection Agent.

## APPROVED COLLECTION METHOD (NO)

The sample submitted for testing HAS NOT met the requirements recommended by member bodies for the DNA collection process.

# TRAT

A feature that an animal is born with (a genetically determined characteristic). Traits are a visual phenotype that range from colour to hair length, and also includes certain features such as tail length. If an individual is AFFECTED for a trait then it will show that characteristic eg. AFFECTED for the B (Brown) Locus or bb will be brown/chocolate.

**CLARIFICATION OF GENETIC TESTING** The goal of genetic testing is to provide breeders with relevant information to improve breeding practices in the interest of animal health. However, genetic inheritance is not a simple process, and may be complicated by several factors. Below is some information to help clarify these factors.

1) Some diseases may demonstrate signs of what Geneticists call "genetic heterogeneity". This is a term to describe an apparently single condition that may be caused by more than one mutation and/or gene.

2) It is possible that there exists more than one disease that presents in a similar fashion and segregates in a single breed. These conditions - although phenotypically similar - may be caused by separate mutations and/or genes.

3) It is possible that the disease affecting your breed may be what Geneticists call an "oligogenic disease". This is a term to describe the existence of additional genes that may modify the action of a dominant gene associated with a disease. These modifier genes may for example give rise to a variable age of onset for a particular condition, or affect the penetrance of a particular mutation such that some animals may never develop the condition.

The range of hereditary diseases continues to increase and we see some that are relatively benign and others that can cause severe and/or fatal disease. Diagnosis of any disease should be based on pedigree history, clinical signs, history (incidence) of the disease and the specific genetic test for the disease.

Penetrance of a disease will always vary not only from breed to breed but within a breed, and will vary with different diseases. Factors that influence penetrance are genetics, nutrition and environment. Although genetic testing should be a priority for breeders, we strongly recommend that temperament and phenotype also be considered when breeding.

**Orivet Genetic Pet Care** aims to frequently update breeders with the latest research from the scientific literature. If breeders have any questions regarding a particular condition, please contact us on (03) 9534 1544 and we will be happy to work with you to answer any relevant questions.





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