

# GENETIC ANALYSIS SINGLE REPORT



## OWNER'S DETAILS

Lipovenko Elizaveta  
??????, ?????????, ?? 40 ??? ???????, ?. 12, ?? 57  
??????  
Other 108851 AU

## ANIMAL'S DETAILS

<b>Registered Name:</b>	Ermine Trace Xtravaganza	<b>Pet Name:</b>	Ermine Trace Xtravaganza
<b>Registration Number:</b>	Pending	<b>Breed:</b>	British Shorthair
<b>Microchip Number:</b>		<b>Sex:</b>	Intact Female
<b>Date of Birth:</b>	11/10/2017	<b>Colour:</b>	ns 11

## COLLECTION DETAILS

<b>Case Number:</b>	18125929	<b>Date of Test:</b>	27/06/2018
<b>Approved Collection Method:</b>	NO	<b>Collected By:</b>	

*Sample with Lab ID Number 18125929 was received at Orivet Genetics, DNA was extracted and analysed with the following result reported:*

<b>TEST REPORTED:</b>	<b>CHOCOLATE &amp; CINNAMON</b>
<b>RESULT:</b>	<b>B/b - FULL COLOUR (CARRIER OF BROWN)<sup>1</sup></b>
<b>GENE :</b>	<b>TYRP1</b>
<b>VARIANT DETECTED :</b>	

<sup>1</sup> Please Note: That in some cases the DNA results alone cannot identify a cat's colour and pattern as genes such as Red (O gene), Bicolour (w's gene also known as S gene) and other genes such as Ticked (Ti gene) do not have an available DNA test at present. The dominant O gene, and the dominant Bicolour gene and other genes such as Ticked can mask or alter the appearance of any underlying coat colour and pattern genes.

## RESULTS REVIEWED AND CONFIRMED BY:

Dr. Noam Pik BVSc, BMVS, MBA, MACVSc



George Sofronidis BSc (Hons)



## 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.