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Knowledge beyond tomorrow

Feline Infectious Peritonitis Resistance SENSOR

Certificate ID: RWCK-PC65-RJDE-I433-2J4S

Sample ID: B01 0491

Sample received : 9/4/2018

Date reported: 9/14/2018

Animal

Owner/Breeder

Name: Orlando Maitre Mao

Breed: Birman

Sex: male

Birth certificate number: /

Tattoo number: /

Microchip number*: /

Registration number: /

Date of birth: 7/28/2018

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*Sample taken by owner.

Calculated risk of developing FIP from genotype of Orlando Maitre Mao is 0,33.

(Report Summary Table 1.)

This corresponds to 7,30% risk of developing FIP, which is 67% less than Birman cat population in general.

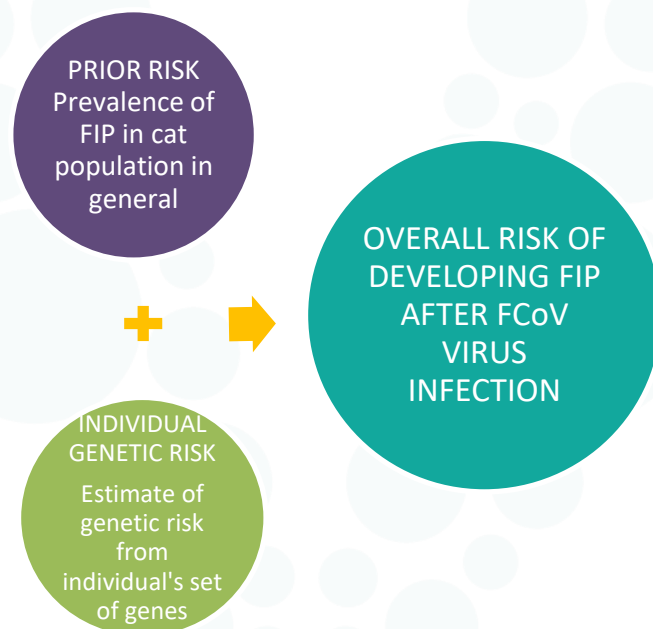
(Report Summary Chart 1. and 2.)

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Laboratory Analyst

Understanding Feline Infectious Peritonitis Resistance SENSOR:

Feline infectious peritonitis resistance (FIPR) SENSOR determines an **overall risk or probability of developing FIP** combining the **prior probability** of developing the disease with **individual genetic risk**. Overall risk finally tells us if the cat is more resistant than the average cat population or at greater risk of developing FIP than the average population.

Prior probability of developing the disease represents prevalence of FIP in purebred cat population or specific cat breed. Since resistance to FIP is a complex health trait associated with multiple genomic loci, among which some loci have higher impact on overall result than other, **individual genetic risk** combines individual genetic associations to derive a composite, multilocus estimate of genetic risk.



Results summary interpretation

Results summary consists of one table and two graphs. Table contains information about genotypes on each of the six loci tested, their impact on overall result (illustrated with number of stars) and the risk of individual's genotype compared to other two genotypes possible for that specific locus (illustrated with indicator; green=low, yellow=intermediate, red=high).

Chart 1. is an illustration of individual's overall risk of developing FIP compared to cat population of that specific breed in general. Yellow color represents average risk of developing FIP. Shift to green color represents greater resistance to FIP while shift to red color represents greater risk.

Chart 2. is an illustration of overall risk of developing FIP compared to prevalence of FIP in purebred cat population or specific cat breed.

References:

- Hsieh, L.-E., and Chueh, L.-L. (2014). Identification and genotyping of feline infectious peritonitis-associated single nucleotide polymorphisms in the feline interferon- γ gene. *Vet Res* 45, 57.
- Jewell, N. P. (2003). *Statistics for Epidemiology*. Chapman & Hall/CRC.
- Pesteanu-Somogyi, L.D., Radzai, C., and Pressler, B.M. (2006). Prevalence of feline infectious peritonitis in specific cat breeds. *J. Feline Med. Surg.* 8, 1–5.
- Risch, N. (1990). Linkage strategies for genetically complex traits. I. Multilocus models. *Am. J. Hum. Genet.* 46, 222–228.
- Wang, Y.-T., Hsieh, L.-E., Dai, Y.-R., and Chueh, L.-L. (2014). Polymorphisms in the feline TNFA and CD209 genes are associated with the outcome of feline coronavirus infection. *Vet. Res.* 45, 123.

Name: Orlando Maitre Mao
Microchip number: /
Date of birth: 28.7.2018

Table 1. Table of genotypes on each of the six loci tested. Number of stars is a relative impact of each of the loci on overall risk. Indicator represents risk of your cat's genotype on each locus (green=low, yellow=intermediate, red=high)

Gene	Variant/SNP	Impact	Low Risk	Intermediate Risk	High Risk	Relative Risk	Result	Indicator
fIFNG	428	★★★★	TT	CT	CC	1,10	CC	●
fTNFA	421	★★★★★	TT	CT	CC	1,12	CC	●
FCD209	1900	★★★★★	GG	GA	AA	0,78	GG	●
FCD209	2276	★★★★★	TT	CT	CC	1,02	CC	●
FCD209	2392	★★★	AA	GA	GG	0,46	GA	●
FCD209	2713	★★★	CC	CT	TT	0,72	CC	●

Calculated risk

Your cat vs. Birman



Chart 1. Overall risk of developing FIP compared to purebred cat population in general. Yellow color represents average risk of developing FIP. Shift to green color represents greater resistance to FIP while shift to red color represents greater risk.

Chart 2. Overall risk of developing FIP compared to prevalence of FIP in purebred cat population or specific cat breed.

