At Last Cats Charli

Registration: SBV071223030

Breed: Maine Coon Microchip Number: N/A

### **DNA Test Report**

Sample ID: FJNTKCB Test Date: 3/28/2024 Optimal Selection - Feline

Owner Info

First Name **Last Name** JIM **KANE** 

Pet Info

**Registered Name** Date of Birth At Last Cats Charli 7/1/2023

Nickname (Call Name) Sample ID At Last Cats Charli **FJNTKCB** 

Sex Registration SBV071223030 Male

Microchip ID **Country of Origin** US N/A

**Owner Reported Breed** Tattoo ID Maine Coon N/A

WISDOM PANEL™

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### Genetic Diversity (Heterozygosity)

At Last Cats Charli's Percentage of Heterozygosity

36%

At Last Cats Charli's genome analysis shows an average level of genetic heterozygosity when compared with other Maine Coons. **Typical Range for Maine Coons** 

32 - 37%

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#### Health Conditions Known in This Breed

| Genetic Condition  | Gene   | Risk Variant | Copies | Result |
|--|--------|--------------|--------|--------|
| Cystinuria Type B (Variant 3)                              | SCL7A9 | T>A          | 0      | Clear  |
| Factor XII Deficiency (Variant 1)                          | F12    | Deletion     | 0      | Clear  |
| Factor XII Deficiency (Variant 2)                          | F12    | Deletion     | 0      | Clear  |
| Hypertrophic Cardiomyopathy (Discovered in the Maine Coon) | MYBPC  | G>C          | 0      | Clear  |
| MDR1 Medication Sensitivity                                | ABCB1  | Deletion     | 0      | Clear  |
| Polycystic Kidney Disease (PKD)                            | PKD1   | C>A          | 0      | Clear  |
| Pyruvate Kinase Deficiency                                 | PKLR   | G>A          | 0      | Clear  |
| Spinal Muscular Atrophy (Discovered in the Maine Coon)     | LIX1   | Deletion     | 0      | Clear  |

#### Other Conditions Tested

| Genetic Condition   | Gene    | Risk Variant | Copies | Result |
|---|---------|--------------|--------|--------|
| Acute Intermittent Porphyria (Variant 1)                                | HMBS    | Deletion     | 0      | Clear  |
| Acute Intermittent Porphyria (Variant 2)                                | HMBS    | G>A          | 0      | Clear  |
| Acute Intermittent Porphyria (Variant 3)                                | HMBS    | Insertion    | 0      | Clear  |
| Acute Intermittent Porphyria (Variant 4)                                | HMBS    | Deletion     | 0      | Clear  |
| Acute Intermittent Porphyria (Variant 5)                                | HMBS    | G>A          | 0      | Clear  |
| Autoimmune Lymphoproliferative Syndrome                                 | FASL    | Insertion    | 0      | Clear  |
| Burmese Head Defect (Discovered in the Burmese)                         | ALX1    | Deletion     | 0      | Clear  |
| Chediak-Higashi Syndrome (Discovered in the Persian)                    | LYST    | Insertion    | 0      | Clear  |
| Congenital Adrenal Hyperplasia  | CYP11B1 | G>A          | 0      | Clear  |
| Congenital Erythropoietic Porphyria                                     | UROS    | G>A          | 0      | Clear  |
| Congenital Myasthenic Syndrome (Discovered in the Devon Rex and Sphynx) | COLQ    | G>A          | 0      | Clear  |
| Cystinuria Type 1A  | SCL3A1  | C>T          | 0      | Clear  |

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#### Other Conditions Tested (continued)

| Genetic Condition  | Gene   | Risk Variant | Copies | Result |
|--|--------|--------------|--------|--------|
| Cystinuria Type B (Variant 1)  | SCL7A9 | C>T          | 0      | Clear  |
| Cystinuria Type B (Variant 2)  | SCL7A9 | G>A          | 0      | Clear  |
| Dihydropyrimidinase Deficiency   | DPYS   | G>A          | 0      | Clear  |
| Earfold and Osteochondrodysplasia (Discovered in the Scottish Fold)    | TRPV4  | G>T          | 0      | Clear  |
| Familial Episodic Hypokalemic Polymyopathy (Discovered in the Burmese) | WNK4   | C>T          | 0      | Clear  |
| Glutaric Aciduria Type II  | ETFDH  | T>G          | 0      | Clear  |
| Glycogen Storage Disease (Discovered in the Norwegian Forest Cat)      | GBE1   | Insertion    | 0      | Clear  |
| GM1 Gangliosidosis   | GLB1   | G>C          | 0      | Clear  |
| GM2 Gangliosidosis   | GM2A   | Deletion     | 0      | Clear  |
| GM2 Gangliosidosis Type II (Discovered in Domestic Shorthair cats)     | HEXB   | Insertion    | 0      | Clear  |
| GM2 Gangliosidosis Type II (Discovered in Japanese domestic cats)      | HEXB   | C>T          | 0      | Clear  |
| GM2 Gangliosidosis Type II (Discovered in the Burmese)                 | HEXB   | 0>0          | 0      | Clear  |
| Hemophilia B (Variant 1)   | F9     | C>T          | 0      | Clear  |
| Hemophilia B (Variant 2)   | F9     | G>A          | 0      | Clear  |
| Hyperoxaluria Type II  | GRHPR  | G>A          | 0      | Clear  |
| Hypertrophic Cardiomyopathy (Discovered in the Ragdoll)                | MYBPC  | C>T          | 0      | Clear  |
| Hypotrichosis (Discovered in the Birman)                               | FOXN1  | Deletion     | 0      | Clear  |
| Lipoprotein Lipase Deficiency  | LPL    | G>A          | 0      | Clear  |
| Mucopolysaccharidosis Type I   | IDUA   | Deletion     | 0      | Clear  |
| Mucopolysaccharidosis Type VI  | ARSB   | T>C          | 0      | Clear  |
| Mucopolysaccharidosis Type VI Modifier                                 | ARSB   | G>A          | 0      | Clear  |
| Mucopolysaccharidosis Type VII (Variant 1)                             | GUSB   | G>A          | 0      | Clear  |

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#### Other Conditions Tested (continued)

| Genetic Condition  | Gene    | Risk Variant | Copies | Result |
|--|---------|--------------|--------|--------|
| Mucopolysaccharidosis Type VII (Variant 2)                 | USB     | C>T          | 0      | Clear  |
| Myotonia Congenita   | CLCN1   | G>T          | 0      | Clear  |
| Progressive Retinal Atrophy (Discovered in the Abyssinian) | CEP290  | T>G          | 0      | Clear  |
| Progressive Retinal Atrophy (Discovered in the Bengal)     | KIF3B   | G>A          | 0      | Clear  |
| Progressive Retinal Atrophy (Discovered in the Persian)    | AIPL1   | C>T          | 0      | Clear  |
| Sphingomyelinosis (Variant 1)                              | NPC1    | G>C          | 0      | Clear  |
| Sphingomyelinosis (Variant 2)                              | NPC2    | G>A          | 0      | Clear  |
| Vitamin D-Dependent Rickets                                | CYP27B1 | G>T          | 0      | Clear  |

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### Blood Type

**Blood Type** Genotype A/A (Most common)

**Transfusion Risk** 

At Last Cats Charli has the most common blood type. He can be transfused with Type A

Moderate

**Breeding Risk** 

If breeding, At Last Cats Charli has a low risk of blood type incompatibility with nursing

| Variant Tested                   | Description                    | Copies |
|----------------------------------|--------------------------------|--------|
| b variant 1                      | (Common b variant)             | 0      |
| b variant 2                      | (Discovered in Turkish breeds) | 0      |
| b variant 3                      | (Discovered in Ragdolls)       | 0      |
| c variant - Causes AB Blood Type | (Discovered in Ragdolls)       | 0      |

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# **DNA Test Report**

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#### Coat Color

| Genetic Trait                                  | Gene | Variant           | Copies | Result                              |
|--|------|-------------------|--------|-------------------------------------|
| Charcoal (Discovered in the Bengal)            | ASIP | APb               | 0      | No effect                           |
| Solid Color                                    | ASIP | а                 | 0      | Banded hairs, tabby patterns likely |
| Gloving (Discovered in the Birman)             | KIT  | w <sup>g</sup>    | 1      | No effect                           |
| Partial and Full White                         | KIT  | Worw <sup>s</sup> | 0      | No effect                           |
| Amber (Discovered in the Norwegian Forest Cat) | MC1R | е                 | 0      | No effect                           |
| Russet (Discovered in the Burmese)             | MC1R | e <sup>r</sup>    | 0      | No effect                           |
| Dilution                                       | MLPH | d                 | 0      | No effect                           |
| Albinism (Discovered in Oriental breeds)       | TYR  | c a               | 0      | No effect                           |
| Colorpoint (Discovered in the Burmese)         | TYR  | c b               | 0      | No effect                           |
| Colorpoint (Discovered in the Siamese)         | TYR  | c°                | 0      | No effect                           |
| Mocha (Discovered in the Burmese)              | TYR  | c <sup>m</sup>    | 0      | No effect                           |
| Chocolate                                      | TYRP | b                 | 0      | No effect                           |
| Cinnamon                                       | TYRP | b                 | 0      | No effect                           |

### Coat Type

| Genetic Trait  | Gene         | Variant          | Copies | Result           |
|--|--------------|------------------|--------|------------------|
| Glitter  | Confidential | _                | 0      | No effect        |
| Long Hair (Discovered in many breeds)                | FGF5         | M4               | 2      | Long coat likely |
| Long Hair (Discovered in the Norwegian Forest Cat)   | FGF5         | M2               | 0      | No effect        |
| Long Hair (Discovered in the Ragdoll and Maine Coon) | FGF5         | МЗ               | 0      | No effect        |
| Long Hair (Discovered in the Ragdoll)                | FGF5         | M1               | 0      | No effect        |
| Lykoi Coat (Variant 1)                               | HR           | hr <sup>Ca</sup> | 0      | No effect        |

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### Coat Type (continued)

| Genetic Trait   | Gene  | Variant          | Copies | Result    |
|---|-------|------------------|--------|-----------|
| Lykoi Coat (Variant 2)                                | HR    | hr <sup>VA</sup> | 0      | No effect |
| Hairlessness (Discovered in the Sphynx)               | KRT71 | re <sup>hr</sup> | 0      | No effect |
| Rexing (Discovered in the Devon Rex)                  | KRT71 | re <sup>dr</sup> | 0      | No effect |
| Rexing (Discovered in the Cornish Rex and German Rex) | LPAR6 | r                | 0      | No effect |

### Tail Length

| Genetic Trait          | Gene | Variant  | Copies | Result    |
|------------------------|------|----------|--------|-----------|
| Short Tail (Variant 3) | HES7 | jb       | 0      | No effect |
| Short Tail (Variant 1) | Т    | C1199del | 0      | No effect |
| Short Tail (Variant 2) | Т    | T988del  | 0      | No effect |

#### Extra Toes

| Genetic Trait           | Gene   | Variant | Copies | Result    |
|-------------------------|--------|---------|--------|-----------|
| Polydactyly (Variant 1) | LIMBR1 | HW      | 0      | No effect |
| Polydactyly (Variant 2) | LIMBR1 | UK1     | 0      | No effect |
| Polydactyly (Variant 3) | LIMBR1 | UK2     | 0      | No effect |