CORIN Cats: A Glimpse into the Future of Feline Genetics

The world of feline fancy is constantly evolving, with new colors and patterns captivating breeders and enthusiasts alike. One such captivating color is a “new golden”: terminology surrounding these phenotypes has evolved significantly, terms like "akita", "light gold" and "flaxen gold" have been used interchangeably. The term "CORIN gold" has been largely dropped as further research revealed the complexity of CORIN-related phenotypes.

Understanding Corin: A Complex Gene

CORIN is a complex protein with diverse functions beyond coat color. It plays a crucial role in various physiological processes, including blood pressure regulation, fluid balance, and heart function. While CORIN primarily functions as a regulator of other proteins, it also influences coat color by interacting with the agouti signaling protein (ASIP). Mutations in the CORIN gene can disrupt this interaction, leading to the production of "golden" or "copper" coats in various feline breeds.

A Brief History of CORIN

The history of CORIN in British Shorthairs/Longhairs, Siberians and Kurilean Bobtails is rich and complex. In the early 21st century, a new "golden" phenotype emerged, characterized by an "ultra wide-band" effect, warmer tones, and often pale markings. This phenotype was initially described as "copper" and subsequently recognized as "flaxen gold" and "copper". These "new goldens" originated from ticked-based goldens (ny 25), not tabby-based goldens (ny 11).

Breeders also observed another distinct phenotype, they named “sunshine", characterized by a paler coat with a warm shimmer. While these cats also tested positive for the CORIN mutation, their phenotype differed from the typical "copper" cats. This suggests the involvement of additional genetic factors, possibly other CORIN variants or modifying genes.

Potential Health Concerns

Research by Abitbol et al. (2022) has significantly advanced our understanding of the genetic basis for "golden" or "copper" coat coloration in Siberian cats and British Shorthair. This research identified distinct CORIN gene variants, which are breed-specific. These variants are predicted to alter the function of the CORIN protein, which plays a crucial role in regulating pigment production.

Given the pleiotropic nature of the CORIN gene, meaning that it affects multiple apparently unrelated phenotypes, and the potential for health implications associated with certain CORIN mutations, it is crucial to exercise caution when introducing new color varieties linked to this gene.

The "Copper" mutation in British Shorthairs is of particular concern. This mutation leads to premature termination of the CORIN protein, potentially disrupting its function significantly. While the long-term health effects of this specific mutation in cats remain to be determined, it is prudent to monitor Copper British Shorthairs for potential cardiac issues and to conduct thorough blood pressure screenings.

A Note of Caution

At the 2024 General Assembly, FIFe Delegates thoughtfully considered a proposal for fast recognition of the CORIN color. However, concerns were raised regarding its potential impact on certain breeds, including British Shorthairs, Siberians and Kurilean Bobtails. These concerns stem from the possibility of health issues associated with this mutation in these specific breeds.

FIFe's Commitment to Health

FIFe's unwavering commitment lies in preserving the health and well-being of all feline breeds. This commitment drives our process to recognizing new colors and patterns. We understand that introducing a new color variety necessitates careful consideration of its potential genetic implications.

The Path Forward

FIFe encourages responsible breeding practices and supports the ongoing research efforts of Breed Councils that have taken a very proactive approach in this recognition. Our aim is to gather sufficient data and scientific evidence to ensure the long-term health and well-being of all cats. We believe that through continued collaboration and responsible breeding, we can navigate the exciting world of feline genetics while prioritizing the health and welfare of these magnificent creatures.

FIFe Health & Welfare Commission