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Cat's DNA Completely Sequenced [Article]

- 6- Webographie -

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We may never understand the mysterious ways of domestic cats. But a team of 25 researchers across three continents have completely sequenced one cat's DNA.

The cat in question is Cinammon, an Abyssinian cat for whom the University of Missouri in Columbia is home. It's the first complete sequencing of a cat. The same researchers also carried out bilsulfite sequencing of Russian cat Boris, revealing that that 10.5 percent of a cat's genome cytosines are methylated, a process that aids in regulating genes in effect switching them on and off. That percentage is considerably lower than estimates for the methylation rate in humans.

Next on the cards is in-depth analysis of the results. Although cats clearly differ from humans in many ways, the DNA data should help in two ways. Firstly, cats suffer from their own versions of diseases such as the immunodeficiency virus (FIV rather than HIV), sarcoma (a rare type cancer from cells in bones, cartilage, fat, muscle and other tissues) and leukemia. The data may provide more insight into how cell mutations linked to such diseases develop in humans.

Secondly, the cat genome is believed to have changed very little since domestic breeds first evolved. By contrasting that stability with the pattern in other mammals, researchers may learn more about how mammals evolve.

And while it might sound like a dry subject, the researchers managed to keep themselves amused. The genome browser they've published is known as Genome Annotation Research Fields or, for short, GARfield.

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