

Why Huskies have blue eyes—and why it might matter for understanding human diseases

[A] new study may help salvage the [direct-to-consumer genomics] field by turning to a previously untapped pool of subjects: dogs.

The research is the first of its kind to be conducted in nonhumans. It drew on data from more than 6,000 customer dogs in an effort to identify the genetic mutation responsible for blue eyes, a striking trait that's relatively common in Siberian huskies but rare among other breeds in which it sometimes appears, like border collies and corgis.

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The data allowed them to identify a novel association: An allele on chromosome 18, carried by just 10 percent of dogs in the data set overall, was present in 100 percent of blue-eyed Siberian huskies.

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Prospective blue-eyed puppies aside, the success of this first study, [now in preprint](#), speaks to the approach's potential: Being able to crowdsource genotypic and phenotypic information can lead to key discoveries regarding not just eye color but also more complex traits, behaviors, and overall health.

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[R]egions of the canine genome have already been causally linked to [more than 70 Mendelian diseases](#)—heritable disorders caused by a single mutation as opposed to a more complex combination of genes—many of which have human analogues.

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Having shared our environment for so long—and seen us through some key transitions in the process—might put dogs in a unique position to tell us about ourselves.

Read full, original post: [Genetic Testing Might Have Just Explained Why Huskies' Eyes Can Be Blue](#)