

Genetics of Impulsive Aggression in the Dog A New Research Project

We are genetic researchers from the University of California, San Francisco. We are working on the Canine Behavioral Genetics Project, investigating the genetics underlying various anxiety-related behaviors such as noise phobia, separation anxiety, fear aggression and impulse control problems. As members of the Department of Psychiatry, our hope is to identify genetic markers that may predispose dogs to certain behavioral traits, with future goals of applying this knowledge to better treatment of affected dogs as well as learning more about related pathways in human disorders.

One of our projects involves studying aggression, a complex behavior that is probably influenced by a combination of genetic and environmental factors. We work under the assumption that many aggressive behaviors are related to underlying anxiety conditions. Specifically, we are interested in maladaptive, anxiety-based fear-aggression and impulse control aggression. Dogs with this type of inappropriate aggression exhibit abnormal, aggressive behaviors that are grossly out of proportion or out of context with the external environment. We are very interested in the genetics and biology behind this trait.

We realize that this is a very controversial trait to research and want to assure you that our entire group has publicly criticized breed-specific legislation. It is clear that this type of inappropriate aggression is seen throughout all breeds of dogs. It is our hope that by identifying genetic markers for predisposition to this type of aggression, we might better address the need for modified training practices at a young age and improved breeding and puppy-raising practices, which we hope will remove the negative stigma associated with particular breeds.

The dog provides a unique opportunity to study the genetics underlying different behaviors. Because dogs from the same breed are more genetically similar than dogs from different breeds, studying single-breed groups makes it easier to find genetic markers that may predispose certain dogs to behavioral traits. Discoveries made in one particular breed can then be extended to other, closely related breeds for confirmation of findings (e.g. Australian Shepherds vs. Collies).

It is our hope that we can find a way to garner support for this project in a positive light, making clear the benefits for the scientific and dog communities while ensuring **complete confidentiality** for owners and their dogs.

We are looking for pure bred dogs affected by this inappropriate form of anxiety-based aggression, their unaffected relatives and large families containing dogs that are both affected and unaffected. If pedigrees are not available, we are also collecting unrelated single cases with these behaviors. If you are interested in participating or have any questions regarding our project, please feel free to contact Jennifer Yokoyama at the email address or phone number below. You can learn more about our studies at our website: <http://www.K9BehavioralGenetics.com>.

Contact:
Jennifer Yokoyama, Graduate Student
Jennifer.Yokoyama@ucsf.edu