02157-MOU: Genomics of Deafness in the Dalmatian

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ABSTRACT: Congenital deafness is a health issue that has higher prevalence in certain breeds, including the Dalmatian. Other studies in this breed have found the trait to be inherited in a complex rather than simple Mendelian manner. Using a large number of samples from animals that have been tested for hearing status, investigators will employ the latest genomic technologies and computational analyses to conduct this study. The ultimate goal is to identify mutations underlying the trait of congenital deafness in the Dalmatian breed and work towards a genetic testing solution for the Dalmatian breeding community.

PUBLICATION(S)

Haase, B., Willet, C. E., Chew, T., Samaha, G., Child, G., & Wade, C. M. (2022). De-novo and genome-wide meta-analyses identify a risk haplotype for congenital sensorineural deafness in Dalmatian dogs. *Scientific Reports*, 12(1), 15439. https://doi.org/10.1038/s41598-022-19535-4

Brancalion, L., Haase, B., Mazrier, H., Willet, C. E., Lindblad-Toh, K., Lingaas, F., & Wade, C. M. (2021). Roan, ticked and clear coat patterns in the canine are associated with three haplotypes near usherin on CFA38. *Animal Genetics*. https://doi.org/10.1111/age.13040

Brancalion, L., Haase, B., Willet, C. E., & Wade, C. M. (2021). Sequence variants of the canine melanocyte inducing transcription factor (MITF) locus reveal a common MITF-A processed pseudogene. *Animal Genetics,* 52(5), 777–778. https://doi.org/10.1111/age.13106