



Siberian Husky Club of America Trust

Health Rescue Education



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NEWS RELEASE

FOR IMMEDIATE RELEASE

Siberian Husky de novo Genome Assembly Project Progress Report: In May of 2021, the SHCA Trust fully funded a project at the University of Wisconsin to sequence the Siberian Husky genome. Here is the current status of the project.

The Research Team reports that they identified a 12-year-old AKC-registered female Siberian Husky with no clinical evidence of heritable disease to provide a blood sample from which to extract high quality DNA. As hoped, they were able to extract very high quality, high molecular weight (i.e., *unbroken*) DNA from this Siberian for use in the study. Unfortunately, due to COVID-19, the Researchers experienced a series of delays which impacted their work on campus and with its next-generation sequencing facility.

In February, the Project Lead reported that they have finally completed the long-read sequencing (*Pac Bio*) component of the project. And, in a parallel effort, the deep sequencing (*Illumina*) is currently in process and will provide exceptionally deep coverage of the Siberian Husky genome. Finally, a blood sample is being submitted to a partner for optical mapping. All three of these activities: long read sequencing, deep sequencing, and optical mapping, are components of sequencing or mapping the length, breadth, and depth of the complete genome. And, the new technology available at the University of Wisconsin will provide the Siberian genome information at a very detailed level.

Despite initial delays, the project is on track to have Siberian Husky-specific reference genome assembly completed, and ready for application in other genomic studies, by late summer 2022, if not sooner. Any and all genomic data from this project will be published and made publicly freely available.

This Siberian genome will deliver a roadmap for the further study of breed-specific diseases (such as cataracts, cancer, and others), enable the identification of genetic markers for disease detection, and open up possibilities for future disease treatments. Additionally, since the Siberian is relatively unmarred by human intervention and breeding for recessive traits, it is considered by researchers to be a clean breed associated with past generations and can therefore be useful to researchers studying diseases found in many breeds.

This is by far the most important and far-reaching project the **Trust** has funded to date, only possible thanks to donations, gifts, and fund-raising efforts. This project is only the beginning. If you want to participate in future research, please visit our website to review donation options. Thank you.

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About the SHCA Trust: Established in 2005, the Siberian Husky Club of America Trust is dedicated to improve the lives of Siberian Huskies in the US through charitable work in the areas of Education, Health, and Rescue. Through fundraising and donations, the Trust provides grants to be used for health and genetic research, to provide educational materials, and to help with local rescue efforts benefitting the Siberian Husky around the Country. Organized as an IRS 501(c)(3) public charity, completely separate from the SHCA, donations to the SHCA Trust may be tax deductible to the extent permitted by law; please consult your tax advisor for details. Visit us at shcatrust.org.