

SCOC Rescue and Education Trust

Health Testing – Expansion of Support for Testing

July 12, 2023

I refer SCOC members to our original letter of support dated May 17, 2021 where the Trust established support for heart testing in our members Salukis. This program while initially for one year has been continued on an annual basis (subject to applications and budgets). It has been a great success. The trust will pay half the cost of heart tests, limiting the trust contribution to \$300 Canadian.

Note – tests need not be done in Canada and our out of Country members can participate – but out contribution limit does remain 50% up to \$300.00 Canadian. Out of Country members must have been members the prior year to be eligible for participation.

We always request that you submit for approval before testing. Our budgets are limited and funds will be allocated to those who apply in advance of testing and may be allocated based on breeding or other criteria as determined now or in the future by the Trust. If you fail to apply prior to testing you do risk not receiving support.

Expansion of Testing:

At previous annual meetings the Trust did ask for suggestions for genetic testing to be expanded to other conditions. Anytime we can improve the health of our Salukis we expect this will reduce the instance of having to deal with rescues in the future.

We have had two types of testing suggested:

Eye Examinations: By a Certified Canine Ophthalmologist.

These can lead to findings of genetic issues that should be taken into consideration when breeding and other eye diseases that can certainly affect the quality of life of any of our dogs. Earlier findings may help with early treatment.

Support: The Trust will cover half the cost of such an examination up to a limit contribution by the Trust of \$100.00 (Canadian).

Genetic Testing.

There are three genetic tests that have been proposed and accepted by the Trust for support. Attached is a description of these tests and approximate costs of the tests (generously put together by Lauren Westover) for conditions that do exist in Salukis. Please read the summary as provided by Lauren (again thank you Lauren for this!!). We are not going to try to summarize the testing here.

Support:

The trust will support the Genetic Testing for these three conditions. The Trust will pay up 50% of the cost up to a Trust contribution limit of \$100 (Canadian) for each of these tests. (To clarify

the trust will pay up to \$100 for each of these tests – so if you do all three your support could be as much as \$300).

APPLY IN ADVANCE:

While we may provide support for those who do the tests prior to applying for support, our budgets are limited, and we will first allocate funds to those who are approved in advance. There is no guarantee of support for anyone.

NOTE: SCOC Trust – reserves the right to decline any application at any time for budget reasons, withdrawal of funds, cancellation of program, or placing priority on certain dogs/bitches, age of dogs and breeding age or plans of stock. All decisions by the Trust are final and not subject to appeal.

Attached is an application. It should be emailed to both Randy White (randy@ngstone.com) AND Kara Lysne-Paris (klysneparis@gmail.com).

Once approved a copy of the paid invoice should be emailed to Kara for payment of the Trust portion.

SCOC Rescue and Education Trust
Saluki Health Support Application

Member Name _____

Member Address:

Note – out of Country – Must have been a member since prior to December of the previous Year,

Email _____ Phone _____

Registered Dog Name _____

Sex M _____ F _____ Date of Birth _____

Heart Test _____

Eye Test _____

Genetic Test

NCL 8 _____ SSADHD _____ DEPOH _____

NOTE: SCOC Trust – reserves the right to decline any application at any time for budget reasons, withdrawal of funds, cancellation of program, or placing priority on certain dogs/bitches, age of dogs and breeding age or plans of stock. All decisions by the Trust are final and not subject to appeal.

Email to randy@ngstone.com and klysneparis@gmail.com.

Genetic Testing SCOC Rescue and Education Trust

This write-up aims to provide an overview of three notable genetic diseases found in Salukis: NCL 8, SSADHD, and DEPOH. The information presented here will aid the board in making an informed decision regarding funding for genetic testing for the Saluki community.

[L]
[SEP]

NCL 8 (Neuronal Ceroid Lipofuscinosis 8)

NCL 8 is a progressive neurological disorder that affects the central nervous system in Salukis. This autosomal recessive disease typically manifests between one to two years of age, causing a variety of symptoms including vision loss, cognitive decline, motor impairments, and seizures. Affected dogs usually exhibit behavioral changes, lack of coordination, and eventually succumb to the disease. The disorder is caused by mutations in the ATP13A2 gene.

The promotion of genetic testing allows for the identification of carriers, enabling responsible breeders to avoid producing affected individuals and ultimately to reduce or potentially eradicate the prevalence of NCL 8 in the Saluki population. North American companies that are currently offering the Saluki variant of this test are [Orivet for \\$45](#) (USD) for the individual test and the [Embark panel at \\$99-159](#) (USD) depending on discounts and sales.

SSADHD (Succinic Semialdehyde Dehydrogenase Deficiency)

SSADHD is an inherited metabolic disorder that affects the brain's neurotransmitter balance. In Salukis, this condition is caused by a mutation in the ALDH5A1 gene. Dogs with SSADHD have deficient levels of the enzyme succinic semialdehyde dehydrogenase, leading to the accumulation of harmful substances in the brain. Clinical signs of SSADHD may include developmental delays, seizures, anxiety, abnormal gait, and behavioral abnormalities. Because of the lack of treatment options and severity of symptoms, puppies affected with this disorder are often euthanized between 3 and 9 months.

Genetic testing can help identify carriers and affected individuals, guiding breeding decisions and preventing the transmission of the disease to future generations. The only North American company that offers SSADHD testing is the [Embark panel at \\$99-159 \(USD\)](#) depending on discounts and sales. Embark includes both NCL 8 and SSADHD in their panel for one price. Embark also includes other potentially relevant diseases such as Degenerative myelopathy (DM) and can calculate how genetically homogenous prospective offspring may be if both potential parents are in their database.

DEPOH (Delayed Postoperative Bleeding)

DEPOH is a genetic disorder that affects the clotting mechanism in dogs. Following surgical procedures or trauma, affected dogs may experience premature or abnormal clot breakdown, leading to excessive bleeding several hours or even days later. Day-to-day DEPOH does not affect the lives of the Salukis who carry mutant copies, but lack of treatment or improper treatment following a surgery or trauma can have fatal outcomes for some affected dogs.

This disorder has an incomplete dominant mode of inheritance; carriers of one mutant copy have a somewhat elevated risk of postoperative bleeding, and dogs with two copies have a significantly higher risk of postoperative bleeding often warranting the consideration of prophylactic treatment for planned surgeries. By funding this genetic test for Saluki owners as well as Saluki breeders, the board can contribute to the well-being of affected individuals in the breed.

This is a very newly developed test and thus there has been very little testing of the Saluki population as a whole, so it is unknown how prevalent the mutant gene is within the Saluki breed, but all possible genetic combinations have been found within the Saluki breed. The DEPOHGEN test can be found only through [Washington State University at this time for \\$65 \(USD\)](#).

Conclusion

Genetic testing plays a critical role in promoting the health and welfare of Salukis. Testing for genetic diseases such as NCL 8 and SSADHD allows breeders to make informed decisions about pairings

and to eliminate the risk of producing affected offspring. Utilizing the recently made available DEPOHGEN test allows not only Saluki breeders to make more informed decisions about their breeding stock, but also helps to minimize the extent of surgical complications for Saluki owners. By funding these genetic tests, the board would contribute to the long-term preservation of the breed's health, facilitating responsible breeding practices and reducing the incidence of these genetic diseases.

Relevant Studies

Court, Michael H et al. "Identification by whole genome sequencing of genes associated with delayed postoperative hemorrhage in Scottish deerhounds." *Journal of veterinary internal medicine* vol. 37,2 (2023): 510-517.
doi:10.1111/jvim.16643

Lingaas, F et al. "Neuronal ceroid lipofuscinosis in Salukis is caused by a single base pair insertion in CLN8." *Animal genetics* vol. 49,1 (2018): 52-58.
doi:10.1111/age.12629

Vernau, Karen M et al. "A Missense Variant in *ALDH5A1* Associated with Canine Succinic Semialdehyde Dehydrogenase Deficiency (SSADHD) in the Saluki Dog." *Genes* vol. 11,9 1033. 2 Sep. 2020,
doi:10.3390/genes11091033