#### LEOGEN GENETIC DIVERSITY PROJECT

CHECK OUT THE WEB PAGE FOR MORE DETAILS

#### WWW.LEOGEN.ORG

- Genomic Diversity and Population Structure in the Leonberger Dog
- Facts and figures
- Why, What, Who
- In Detail

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# LEOGEN Genetic Diversity Project

## It all started back in November 2020..

The academic study called - "Genomic Diversity and Population Structure in the Leonberger Dog",

presented stark evidence of the dangerous depletion of genetic diversity within our breed. As a result a a group of knowledgeable and committed experts

Much has been achieved in the three years since then and we wish to update everyone across the Leonberger world who shares our interest in this magnificent breed.

#### Acknowledgements

**LEOGEN** proposal has been formally acknowledged by the Deutscher Club fur Leonberger Hunde, the "mother club" of the breed.

In December 2023, the newly appointed president and board of the German Leonberger Club - after giving full consideration to the Leogen proposal, have issued a statement, which we are very grateful for:

"The German Club for Leonberger Dogs e.V, in its status as the Motherclub in the country of origin of the Leonberger, is the Standard Keeping Authority. We are well aware of the constantly decreasing genetic diversity in our breed and the associated risks to the health of the dogs, and will therefore follow the LEOGEN project with great interest. We kindly request you to keep us regularly updated about the procedure, the timeline and important achievements of the project".

This was a vital first step for us, and we are so grateful that the need for this project has been fully recognised by the DCLH.

#### **LEOGEN** project gains UK Kennel Club approval.

of presentations and negotiations, we were thrilled to receive a formal letter of approval for the LEOGEN project from Bill Lambert, Health Welfare and Breeder Services Executive, for the newly re-named Royal! Kennel Club. This informed us that the Board of Directors have:-

... "acknowledged and approved the recent recommendation from the Dog Health Group, have a clear understanding of the intricacies of the project, and have formally granted authority for progeny produced within the Leogen project to be registered under the LEOGENZ affix ... "

This will effectively open the studbook for LEOGEN progeny, which is a massive step. Members of the influential Dog Health Group have referred to the LEOGEN proposal as a "flagship project", and one that could provide a vital model for "future genetic management" for all pedigree breeds.

In February of 2024, after two years

formed a group and LEOGEN was launched. Leogen MM www.leogen.org LEONBERGER GENETIC DIVERSITY PROJECT

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#### and . . .

It was always our intention to only proceed once we had secured the approval of the governing bodies that oversees breeding and registrations.

From the start the LEOGEN team has considered this major milestone to be essential.

The next step is to get similar approval from a significant FCI based Kennel Club, and we are very happy to now be able to report that the full LEOGEN Diversity Project proposal has been submitted for consideration by Finnish Kennel Club's Breeding Committee at their August session. This was done through utilising the crossbreeding project proposal template that this progressive Nordic club already has in place. We feel very confident that we shall soon have the green light to move forward from this registry body as well.

Moves are already underway to merge the approach taken to LEO-GEN progeny by both registry systems.

#### **Funding and Establishing a Legal Entity**

You
can
support
this
project
by
donating

It is currently estimat- to gather and manage ed that the LEOGEN project will run for 12 to 15 years, and if it is to be successful, it will require financing. It will also be necessary to enter into for-

mal agreements with business partners such as DNA profiling labs, as well as to be able to make formal grant applications and

funds through various other fundraising activities.

Therefore, a proposal has now been submitted to the UK Charities Commission to establish a new "Charitable Incorporated Organisation" to facilitate and account for the financial and other legal

activities that will be undertaken by the project.

We are very grateful for the initial support given to the project by the Swiss, Finnish and British National Leonberger Clubs, without which we would not have been able to prepare this formal submission.

## **Matching Donation Challenge**

We have recently been advised of a generous donation to kick start the LEOGEN project.

Once bank details and charity status are confirmed the :LEOGEN team will set up a matching donation challenge.





## **First generation planning is underway**

The LEOGEN team is currently formalising our plans for our initial F1 generation, which will likely see infusions of outside genetics from three sources.

Our final choices will depend on multiple factors including health history and genetic results, but we are currently focusing on three possibilities.

- The European Continental Type Landseer, which is a large Euromountain pean dog breed with similar morphological and behavioural characteristics.
- Secondly, we are negotiating with the internationally respected Dog British Guide breeding programme

to use one of their own F1 Golden Retriever crosses. This will hopefully bring in strong diversity as it is an entirely different group (gun dogs) from a breeding programme that is itself renowned for fitness, longevity and dependably biddable temperaments.

• Finally, we are in negotiations to get a contribution from a rare Asian landrace type, which we hope will bring an injection of very diverse genetics from entirely outside of closed modern the western breeds gene pools.

The LEOGEN model is unique in that we will do three outside crosses concurrently for our F1 generation. Then subsequently rotate them between the three breeder teams to alternatively backcross and horizontally cross as the generations progress, so that our goal of blending the contributions from three outside sources together whilst retaining strong Leonberger type is achieved.

We hope to see the first LEOGEN litters born in early 2025.



Finally, the answers to your \$64,000 question.

## **Establishment of LEOGEN Puppy Homes**

We are currently working with the Puppy Development team at Guide Dogs.

They have a superb Puppy Walker network and leaning on their experience and knowledge with uniform and clear strategies, will help us establish our own community of puppy guardian homes to support the LEOGEN project.

This will help us to ensure that our Puppy Guardian Homes are thoroughly vetted, prepared and supported to raise each LEOGEN pup to be fit, healthy and well socialised individuals.

If you are interested in finding out more about becoming a LEOGEN Puppy Home, please submit your details online at:

www.leogen.org/contact-us

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#### LEOGEN GENETIC DIVERSITY PROJECT

#### www.leogen.org



E-mail: admin@leogen.org

The LEOGEN project is about introducing more genetic diversity into our breed.

The true origins of the breed are not known because Heinrich Essig, who is credited with its foundation, kept no clear records.

In 1954, a Leonberger bitch called Alma Vom Rossbach was born to a dam - Grisette v. Bruckberg - a Newfoundland. This was a sanctioned outcross intended to introduce genetic diversity into the lines following the devastation wrought by the Second World War.

This is a well-documented historic precedent of outcrossing to enhance genetic diversity in the Leonberger breed.

The LEOGEN project has the same goalpost.

"The goal of all breeds is to grow and maintain a large, diverse and healthy population. Diversity is the key to a healthy breed. Without diversity, there is no choice, and without choice, you cannot find alternatives to bring into your lines to correct faults." - Dr. Bell, Prof. Canine Genetics, USA.

## **New Faces Join the Project**



Peter Lewis: Treasurer Sheila Johns: Secretary



Juulia Nemlander "Irtokarvan" Kennel.

# LEOGEN Advisory group is formed.

LEOGEN is a complex proposal that draws on several fields of specialist knowledge. Without a doubt the scheme will change and adapt as it moves forward, and part of our responsibility is to ensure that we have the necessary expertise required to successfully manage and guide us as the project evolves.

The Leogen Advisory Group is made up of highly qualified experts who share in the aims and objectives of the Leogen proposal. All have kindly agreed to share their knowledge and expertise with us as the project progresses. **Prof. Dr. Tosso Leeb** -Director of the Institute of Genetics, Department of Clinical Research and Veterinary Public Health at the University of Bern in Switzerland.

#### Raymond 'Hector' Heathcote BVM&S, MRCVS -

Breeder, veterinarian, canine reproduction specialist and member of the British Kennel Club Board of Directors.

**Agi Hejja -** Breeder, Judge and co-director of the Leonberger Club of America Judge's education programme.

Wanda Oud - breeder, Judge, member of the Deutscher Club für Leonberger Hunde health and breeding committee.

You can find more information about the full LEOGEN team on:

www.leogen.org