

Berner-Garde UPDATES

SEPTEMBER, 2022

What is Berner-Garde?

- ▶ BGF was established to collect, maintain and disseminate information about genetic diseases observed in the Bernese Mountain Dog.
- ▶ It is comprised of a voluntary Board of Directors, several committees and a computerized database.
- ▶ The database contains information from **voluntary submissions** of data from owners and other public sources of information, including the Orthopedic Foundation for Animals (OFA) and the Canine Eye Registration Foundation (CERF).
- ▶ Information BGF database is available to all owners, Bernese Mountain Dog clubs, both national and international, veterinarians, researchers and other appropriate users who are working to reduce genetic disease in the BMD.

Working to Ensure a Healthy Future



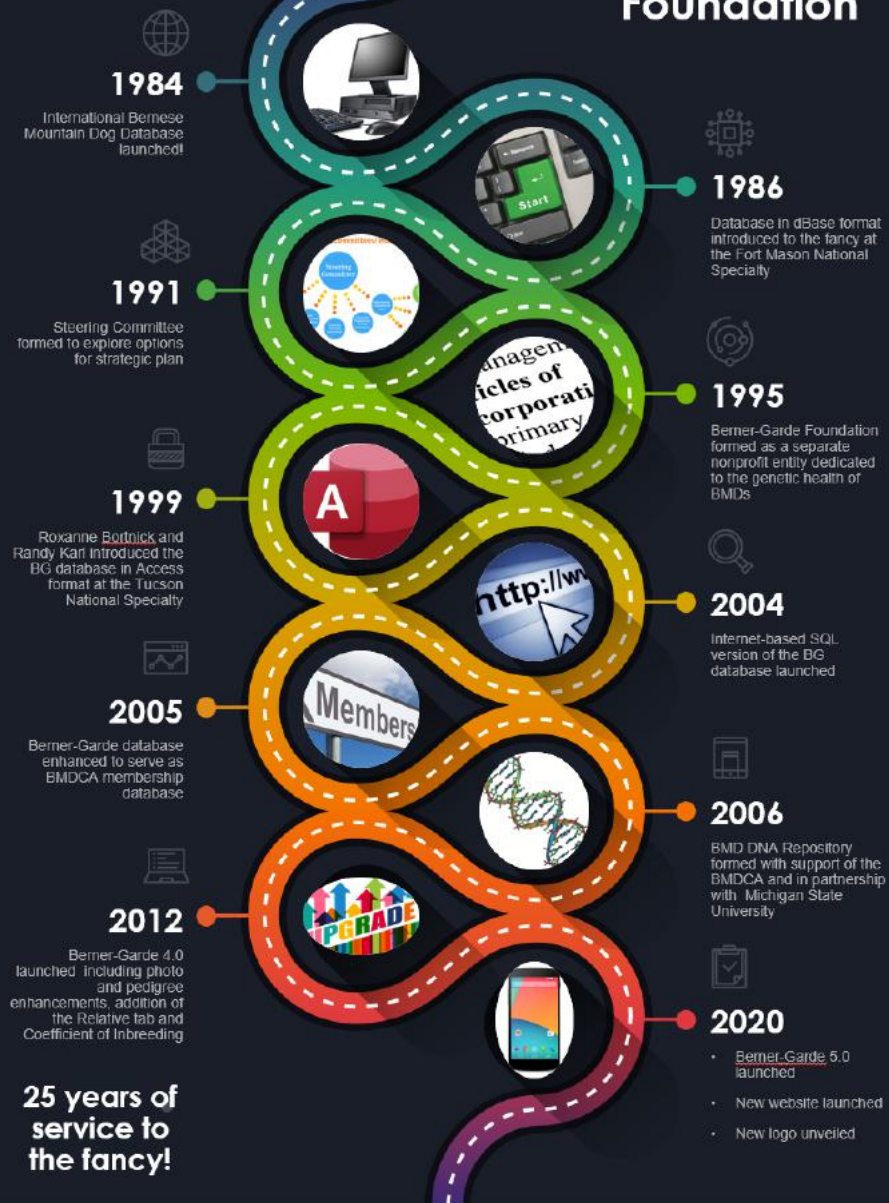
A LITTLE HISTORY

The Berner-Garde Database started in the 1970's by Martin and Barbara Packard



IEWG meeting(Barbara & Alida Wind) in Amsterdam

Berner-Garde Foundation



Timeline

- ▶ 1986 – Database introduced at BMDCA National Specialty by the Packard's
- ▶ 1995 – Berner-Garde Foundation established
- ▶ 2004 – Database accessible on the Internet
- ▶ 2006 – DNA Repository launched in partnership with BMDCA and Michigan State University
- ▶ 2012 – Significant upgrades to the database
- ▶ 2020 – 25th anniversary of the Berner-Garde Foundation

2020 was the 25th anniversary of the Berner-Garde Foundation

- ▶ Complete redesign of the website and database
- ▶ Automatically adapts to smaller screen sizes (phones and tablets)
- ▶ Easier navigation and searching
- ▶ More dog information with fewer clicks
- ▶ Targeted submissions with document uploads
 - ▶ Health Screens (certifications)
 - ▶ Health/Disease reporting
 - ▶ Titles

And a new modern logo!

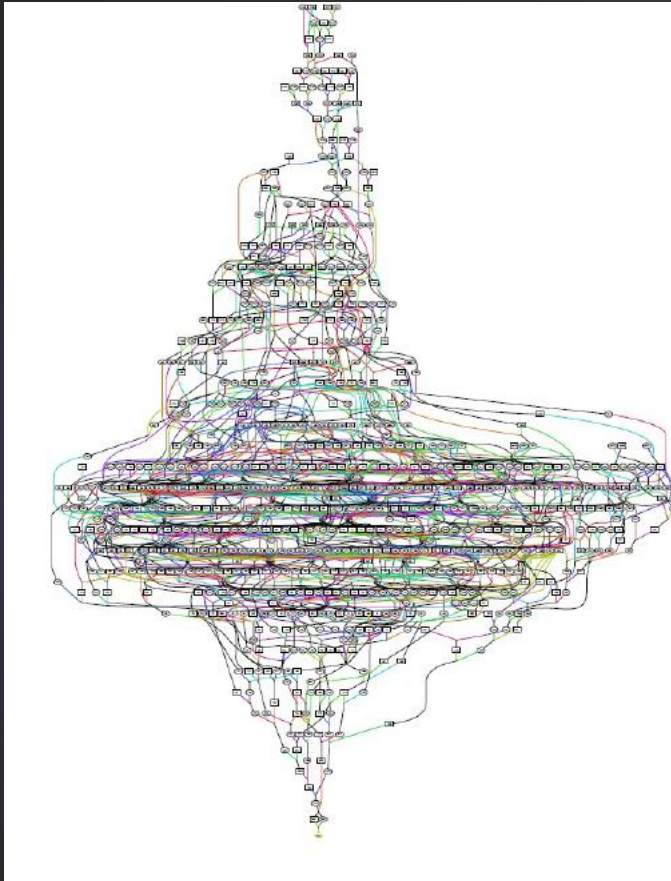


BGF Database

current statistics

- ▶ 207,000 dogs, 61,000 litters (+32% in the past three years)
- ▶ 133,000 Health Screens (certifications)
- ▶ 31,000 Health disease records
- ▶ 500,000+ pages viewed per month
- ▶ 35% of dogs are from United States (was 43% three years ago)
 - ▶ 17% from the Netherlands
 - ▶ 12% from the United Kingdom
 - ▶ 11% from Canada

Current Inbreeding Average Data for litters born since 2012



- ▶ 8,827 Litters
- ▶ Average COI = 5.8
- ▶ 10-Year average in 2018 was 5.9

Full Litter Data is Imperative





RESEARCH



BERNER-GARDE WORKING WITH RESEARCHERS

- ▶ Established a DNA and Tumor Tissue repository at Michigan State University
 - ❖ Currently has blood DNA from 3584 dogs and 472 frozen tumors
- ▶ Expanding work with researchers to provide them with DNA and data
- ▶ Sent blood samples to the research team of Dr. Catherine Andre and Dr. Benoit Hedan
- ▶ Dr. Vilma Yusbasiyan-Gurken of Michigan State University and Dr. Elaine Ostrander of the National Institutes of Health are collaborating on Histiocytic Sarcoma using both blood and tissue samples. The research is focused on both genetic causes and treatment.
- ▶ Supporting clinical trial of a drug to treat Histiocytic Sarcoma
- ▶ Funding research to develop “liquid biopsy” for Histiocytic Sarcoma

DATABASE VALUABLE TO RESEARCHERS

- ▶ Can only be valuable with accurate pedigree and health information
- ▶ Berner-Garde requires copy of veterinary reports to mark diseases as “diagnosed”
- ▶ Berner-Garde requires verification of ALL health screen certifications
- ▶ Verified health data makes the database trusted by researchers and breeders

Data Analysis of Health Issues

- ▶ Next slide data shows Diagnosed Health records for the past 10 years.
- ▶ 3490 records that include pathology reports.
- ▶ Top 16 issues listed

Top 16 diagnosed health issues

1.	Histiocytic Sarcoma	19.5%	9.	Osteosarcoma	1.6%
2.	Cancer – unspecified	8.2%	10.	Melanoma	1.4%
3.	Lymphoma	7.4%	11.	Adenocarcinoma	1.3%
4.	Mast Cell Tumor	4.5%	12.	Thyroid Issues	0.9%
5.	Hemangiosarcoma	3.6%	13.	Round Cell Sarcoma	0.8%
6.	Bloat/Torsion	3.4%	14.	Degenerative Myelopathy	0.7%
7.	Cruciate Ligament	2.3%	15.	Sub Aortic Stenosis	0.7%
8.	Renal Dysplasia/Failure	1.9%	16.	Spindle Cell Tumor	0.7%

Hip and Elbow Dysplasia

- ▶ Using last 10 years of data
- ▶ Hip Dysplasia
 - ❖ 12,390 dogs tested
 - ❖ 860 affected (6.9%)
- ▶ Elbow Dysplasia
 - ❖ 11,478 dogs tested
 - ❖ 1,493 affected (13.0%)

How can you help?

- ▶ Submit disease information to help researchers
 - ❖ Laboratory diagnostic reports when possible
 - ❖ Allow scientists to find ways to reduce diseases
- ▶ Submit all health and certification data for information and statistics
- ▶ Assisting researchers will allow us to produce healthier, longer-lived Bernese
- ▶ Leave a legacy ...

www.bernergarde.org

THANK YOU!



QUESTIONS

