

What is the Repository?

A number of genetic diseases afflict our breed, such as cancers, orthopedic problems and reproductive problems. Research on these diseases has been hampered primarily by the lack of samples and insufficient medical information. The Berner-Garde Foundation (BGF) is a non-profit organization established in 1995 to accumulate and disseminate health information on BMDs using a state-of-the-art database. BGF has long had the goal of creating a resource of pedigree and current medical information (stored in the BGF database) with available DNA and tissue (stored in a repository) for as many BMDs as possible, to facilitate BMD health research. Now it is here! BGF and Michigan State University, with support from the BMDCA, have established a repository that will collect, store and maintain DNA and tissue samples from a large population of BMDs, whether affected with a disorder or not, along with pedigree and medical history information. The Repository is envisioned to be a reliable resource for investigations of genetic and complex diseases that affect the BMD as well as other dog breeds and humans with similar disorders.

Three BGF trustees worked closely with MSU researchers to create this repository. Lori Jodar, BGF President, has been the impetus behind this goal and leader of the project; Mary Maliarik, PhD, developed the scientific requirements and is the scientific liaison; Gary Galunas developed the intricate database capability to handle the enormous amount of information that needs to be included in the BGF database. The MSU team is headed jointly by geneticist, Dr. Vilma Yuzbasiyan-Gurkan, and pathologist Dr. Matti Kiupel. Both researchers have a long track record for contributions to canine health and have been collaborating extensively over the past 5 years on research in various aspects of cancer. Dr. Yuzbasiyan-Gurkan is Associate Professor in the Department of Small Animal Clinical Sciences at the College of Veterinary Medicine and runs the Laboratory of Comparative Medicine and Canine Genetics. Dr. Kiupel is Associate Professor in the Department of Pathobiology and Diagnostic Investigation as well as Director of the Immunohistopathology Laboratory and Biopsy Service at the MSU Diagnostic Center for Population and Animal Health (DCPAH).

MSU proposed to provide not only a repository to store and catalog DNA and tissue samples, but will be linked to available state of the art diagnostic evaluation of submitted specimens, as well. While diagnostic evaluation is not the main function of the repository, it is intended that the evaluation will provide personalized, rapid, accurate information for BMD owners, and assist the repository in maintaining detailed information on submitted samples. They envision that the repository will have the highest diagnostic, analytical and archival capabilities, function efficiently, and be active in research related to BMDs. They will be integral to the creation of collaborative research along with their own original studies and will provide much intellectual input regarding samples.

How does the Repository work?

Basically, all dogs who have submitted specimens to the repository will be registered in the BGF database, which is open to all. However, all submitted specimens will be given an anonymous number which will be used to distribute samples to researchers in a blind format that maintains the anonymity of the dog and owner identities. This means that no DNA information will be available to the public, only that medical information that is routinely available in the BGF database

While samples from all BMDs are accepted, the collection of specimens from complete families of dogs is emphasized, to enhance genetic research. These samples will have two-major uses: 1) supporting research into genetic and other diseases affecting this breed; 2) defining the presence or absence of known disease markers in BMDs. Several specimen types are encouraged: Blood samples; Cheek swabs; Preserved tissue biopsy samples; Fresh frozen tumor tissue

Blood and/or cheek swabs can be obtained from any dog, including entire litters. This specimen type will provide DNA, for genetic research. Tissue samples provide not only DNA, but RNA, protein and cells to study the process of disease, such as cancers. To encourage submission of samples to the Repository, the cost of submission of blood, swabs and biopsy samples is covered by funds from Berner-Garde and the BMDCA. The owner will have the cost of shipping and veterinary costs.

How do I submit a specimen?

Blood and cheek swabs can be sampled at almost any time. A veterinarian can draw blood and you can take cheek swabs yourself! These two specimens are encouraged in litters. Tissue specimens should only be taken during normal veterinary care. We DO NOT encourage any special procedures for obtaining these samples. You can submit the information online, just as you would enter your dog's info! Just check the www.Bernergarde.org website for updated information.

For more information on the repository, please contact: Mary Maliarik, PhD: (mmaliarik@aol.com) 734-995-1856, or at MSU:

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How Else Can You Help?

You can support the Repository by donation to Berner-Garde Foundation. BGF is a non-profit, 501(c)3 organization, so donations are tax deductible. Please consider giving to this worthy cause!

Send donations to:
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