The Rabies Challenge Fund

World-renowned vaccine research scientist and practicing veterinary clinician, Dr. W. Jean Dodds of California, and pet vaccine disclosure advocate, Kris L. Christine of Maine, have established The Rabies Challenge Fund to raise money to fund concurrent 5 and 7 year rabies vaccine challenge studies in the United States.

In addition to the challenge studies, the fund will finance a study of the adjuvants used in veterinary rabies vaccines and establish a rabies vaccine adverse reaction reporting system.

Rabies vaccination is the one immunization required by law across the country for domestic dogs and cats, and researchers believe this vaccine causes the most and worst adverse reactions in animals. According to the August 2003 Journal of Veterinary Medicine, a research study by M. Vascellari and colleagues documents cancerous tumors in dogs at the presumed injection sites of rabies vaccinations.

Although pets used to be vaccinated yearly for rabies, the majority of state protocols now require re-vaccination every three years. There are scientific data indicating that vaccinating dogs against rabies every three years is unnecessary. Results of Michel Aubert's French challenge study published in 1992 demonstrated that dogs were immune to a rabies challenge 5 years after vaccination and the serological studies of Dr. Ronald Schultz (Professor and Chair of the Department of Patho-biological Sciences at the University of Wisconsin School of Veterinary Medicine) have shown that dogs have antibody titer counts at levels known to confer immunity 7 years after vaccination for rabies. The Rabies Challenge Fund has been founded to improve the safety of rabies vaccines and to determine, by challenge, if they confer immunity for 5 or 7 years.

Submitted by Sue Wilcox

Photo submitted by Mary Gunter

My Heart Belongs To My Basenjis

Author Unknown

An unusual dog,
The Basenji –
A treasure of a breed.
A delightful dog without a bark –
A different dog indeed.

So loyal and protective,
With such a loving way –
My Basenjis are the sunshine
That brightens every day.

Submitted by Nancy Burton

Health Committee Update

By Lisa Corell Auerbach

This has been a very busy and eventful year for the Health and Research Committee. At the 2005 National, we had a large and successful eye clinic, and two health and genetics seminars, one on Hip Dysplasia and Thyroid certifications, the other on Vertical Pedigrees. Many thanks to Dr. Moore for giving our eye clinic, and to Dr. Keller for giving the seminars. Articles covering the seminar material are available online at the OFA web site. I will request links to this material from the health section of BCOA's web site, and in the interim can email links to anyone interested.

The highlight of the National, and for that matter for the year, was the Health Committee's meeting with Dr. Gary Johnson. Dr. Johnson is currently involved in a landmark study on Fanconi, which we hope will bring us closer to having a test. He attended the Health Committee meeting to update us on his Fanconi research and to tell us more about the Canine Phenome Project.

FANCONI

The Fanconi research is particularly exciting. In the past, we have looked for the Fanconi gene using candidate genes, an approach that looks for mutations in genes known to have some effect on the systems involved in the disease. The candidate gene approach is useful, but with so many genes still unmapped, it?s not a certain approach.

With the new study, we are moving to looking for the Fanconi gene or genes using a whole genome approach. In the whole genome approach, researchers compare DNA from affected and normal dogs, using markers throughout the entire genome – the entire set of Basenji genes – and look for markers that correlate with genes of interest. While there are no guarantees with research, the odds are good that a marker will correlate to the Fanconi gene or genes.

Using our stored Basenji DNA, we have put together research pedigrees of Basenji families. Many thanks to Jon Curby for his help coordinating the efforts of breeders with our researchers at the University of Missouri. Many thanks also to our wonderful Basenji breeders, who have really come through for us. Because Basenjis have a limited gene pool, we needed a larger pedigree to do statistically relevant analysis. Dr. Johnson believes we now have sufficient dogs in the pedigrees to begin. The University of Missouri will do the mapping, not the National Institutes of Health (which was one early plan.) However, the basic mapping is the same regardless of where it is done.

This work will take some time. For example, in the sample pedigree Dr. Johnson showed us, there are 51 Basenjis. Each Basenji's DNA will be compared to 299 markers. This will involve 15,249 genotype determinations, 4386 PCR amplifications, and 3315 sequencing runs. Whew! Fortunately, new technology makes that level of detailed analysis feasible both technically and financially.

This genotyping will start in October or November, and will take 2-3 months. Data analysis from the genotyping will take 2-3 weeks. Once the Health Committee hears back on the results, we will be notifying the membership. Good news will be that we have started the process that should lead to a DNA test – bad news will be that we need more data and more samples. Either way, if things go as expected, we are likely to know by this spring. Fingers crossed and we will keep you posted.

PHENOME PROJECT

To quote, "The Canine Phenome Project is an effort to describe the dog as a species in all of its variability and to understand the factors, both genetic and non-genetic, that contribute to this variability. The Phenome includes: size and appearance, composition and metabolism, behavior and temperament, health and disease susceptibility."

The Phenome Project approaches canine genetics by starting at the phenotype and working back to DNA, whereas the Genome Project started at DNA and worked back to phenotype. The two approaches complement each other. Because of our extensive DNA bank, Basenjis are in a unique position to use

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this new technology – and, of all breeds, we are currently furthest along in the Caninee Phenome Project.

The Phenome Project was paid for by donations from the Basenji Health Endowment, the Kerry Blue Terrier Club, the Collie Health Foundation, the University of Missouri, and the Orthopedic Foundation for Animals.

The website is online at www.caninephenome.org. Once things are up and running, you will use the web site to enroll individual dogs, filling out identifying information, completing the survey about the dog, and then providing a blood sample for DNA.

The Phenome Project has written an excellent overview of its goals and activities, which will be published in The BCOA Bulletin.

Photo submitted by Mary Gunter

Victor is prepared for his first Canadian winter.

AKC Adopts New DNA Requirement for Imported Dogs Intended for Breeding

Thursday, October 27, 2005 – The American Kennel Club (AKC®) announced today that any imported dog or bitch registered with the AKC on or after March 1, 2006 will be required to have an AKC DNA profile prior to registering their first litter whelped in the United States.

The policy will require any imported dogs or bitches that sire or produce an AKC-registered or FSS-enrolled litter to have an AKC DNA profile on file before their litter applications will be accepted into the AKC registry. However, from March 1 - May 1, 2006 there will be a limited phase-in period. During this time AKC will register affected litters without delay and notify the owner of the new requirement.

"AKC's DNA consultant Elaine Ostrander and I met with the AKC Board in December 2004 to begin reviewing our DNA program," said AKC Assistant Vice President of Compliance Tom Sharp. "This new DNA requirement for all imported sires and dams was a new initiative the AKC Board approved this year. As a result, AKC will be able to verify all progeny from imported animals moving forward."

This requirement does not affect any foreign dogs registered with the AKC before March 1, 2006.

To make their imported breeding stock eligible to sire or produce AKC-registerable puppies, breeders will need to follow the following steps:

Obtain a DNA test kit, available at the AKC Store at: www.akc.org/store and collect cheek swabs samples from their dog or bitch.

Send the DNA cheek swab sample along with the required paperwork and fee to the AKC in the envelope provided in the DNA test kit. To eliminate delays in processing litter applications, the completed DNA test kits should be submitted in advance of the litter application.