

# BFCA *Health Times*

**January 2011**

**Editor and Chairman:  
Nancy McDonald**

**Committee Members: Lisa De  
Camps, Vickie Halstead, Paula  
Hendricks, Anne Jones**

**In This Issue: An Apology, BFCA Research Support, DNA Banks, Donations,  
CHIC Report, CHIC 5\* Report**

In the fall issue of Health Times, my gratitude was expressed to Anne Jones and Vickie Halstead for their chairmanship of the BFCA Health Committee. However, I overlooked the very first chairman of this committee, Jacqueline Fein. Jacque was a pioneer, working on the very first survey, establishing the committee and realizing the need to communicate with the BFCA membership via the Health Times. Jacque graciously accepted my apologies for this oversight, encouraging me and all the membership to realize the importance of maintaining and improving the health of our beloved breed.

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## **AKC/CHF GRANT SUPPORT FOR 2011**

Each year, CHF review various research studies submitted to them. Once approved, CHF turns to individuals and clubs for financial support. This year there were 15 research projects that the committee reviewed. Each committee member reviews each research project and discusses the merits of each as it pertains to the Bichon Frise. Also reviewing these studies was Larry Letche DMV, a BFCA member and the Health Committee's medical advisor. The following are the two research grants the committee members and Dr. Letche deemed pertinent to the Bichon Frise.

***Development of Anti-IgE Peptide for Treatment of Canine Allergy*** is the study the committee believes will be most beneficial for the Bichon and is pledging \$2500 from the CHF advised fund. As a reminder, the BFCA is a member club of

AKC/CHF with a CHF Advised Fund. When BFCA pledges funds from the Advised Fund, CHF matches those funds. At a level of \$2500, the club will receive periodic research updates and be listed as a sponsor on CHF website and in other publications.

**01415: *Development of Anti-IgE Peptide for Treatment of Canine Allergy***

**Primary Investigator: Dr. Bruce Hammerberg, DVM PhD**

**Institution: North Carolina State University**

**Total Grant Amount: \$84,861.00**

**Project Abstract:**

Treatment of chronic allergic diseases in dogs, often seen as recurring dermatitis, frequently results in less than optimal outcomes. When the disease can be linked to exposure to specific allergens, such as house dust mites, desensitization injections can be effective in some individuals when carried out over an extended time; however, most cases are not resolved by desensitization and require a combination of allergen avoidance and anti-inflammatory drugs. The prolonged use of these drugs, such as corticosteroids, can result in severe side effects. These same challenges exist for human allergy sufferers, but recently there has been a major breakthrough in the development of a new, safe and effective therapy using a monoclonal antibody that specifically binds and neutralizes human IgE that is responsible for activating inflammation-producing cells. This new product is called Xolair® and it has been used safely by millions of allergy patients for more than 5 years. Our laboratory has developed a monoclonal antibody that specifically binds canine IgE in the same manner as the monoclonal antibody used to develop Xolair®. There are two obstacles remaining in providing the canine equivalent to Xolair® for treatment of allergies in dogs and they are the Objectives of this proposal: 1. Modifying the monoclonal antibody to reduce the dog's natural response to clear this protein; and, 2. Developing cost effective production of the modified antibody. Our Approach is to: 1. Generate a single chain recombinant peptide from the IgE-binding region of our canine IgE-specific monoclonal antibody that is small in size and of limited antigenic potential; and 2. Develop a transgenic plant (eg. tobacco) containing the gene for this recombinant peptide using well established techniques that will allow production of the therapeutic peptide in kilogram quantities. The expected outcome will be to provide a new, safe and highly effective treatment option for canine allergic diseases that is affordable to use for maintenance therapy.

***Genomic Resources for the Control of Canine Pyoderma*** is the second study the committee believes will benefit the Bichon. Pyoderma is often a problem in dogs with allergies, and as is known, Bichons often have allergies. The committee is pledging \$1000 toward this study. Pertinence for the Bichon is always considered as well as maintaining funds for any breed specific study offered in the future.

**01421: *Genomic Resources for the Control of Canine Pyoderma***

**Primary Investigator: Dr. Stephen A. Kania, PhD**

**Institution: University of Tennessee**

**Total Grant Amount: \$42,466.00**

**Project Abstract:**

Staphylococcal bacteria are responsible for most canine skin infections as well as other important diseases. Until recently antibiotic therapy was very effective for the treatment of these conditions. However, antibiotic resistance is increasing rapidly and we envision running out of useful antibiotic options. Alternatives to antibiotics may include vaccines or bacterial factors naturally produced by staphylococci that inhibit competing strains. The key to developing these strategies is discovering the genes responsible for antibiotic resistance, bacterial growth

inhibitors, and targets for vaccines. The first step in our project is the collection of staphylococci causing skin infections from dogs in designated regions throughout the United States. Unique strains of antibiotic resistant bacteria will be identified and their genes of interest characterized for use in the development of the next generation of therapies for the treatment of canine infections.

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## **The Responsibility of Breeders**

No matter how many articles are written or read on improving the health of dogs, unless action is taken by breeders, a breed's health will decrease. The pressure is tremendous to always push toward better and better health but when breeders work together, the results can be tremendous. The Pug breed, beginning in the 1970's, suffered from Pug Dog Encephalitis, a neurological disease affecting young Pugs resulting in seizures and death. Believing the disease to be genetic, in the mid 90's the club co-funded some research projects with the Canine Health Foundation. The Pug's key effort began 7 years ago under the direction of Dr. Kimberly Greer who located 3 alleles involved in the disease. This year, on November 1, 2010, the Veterinary Genetics Lab at U.C. Davis launched a DNA test for the susceptibility to Pug Dog Encephalitis. Pug breeders now have the ability to test their dogs to make more informed decisions about breeding and decrease the frequency of PDE. This story warms any breeder's heart and should also hammer home the benefits of DNA research. However, Bichon breeders, this research would not result in success if the Pug breeders had not been willing to donate DNA samples to the research project. One of your most important responsibilities as a breeder is to collect, save AND donate DNA to a research bank. The following information tells you, the Bichon breeders, how to uphold this responsibility.

### **Bichon Frise DNA Collections**

#### **“Saving the Past and Breeding for the Future”**

**Vickie Halstead RN, CVNS, CCRN, CEN, CLNC**

**Anne Jones RN (retired), BSNE**

Breeding purebred dogs means breeding within a limited gene pool and the Bichon Frise is no exception. Throughout history, humans have bred dogs by looking only at the physical characteristics (phenotype), but it is a game of chance. When you repetitively breed the same gene pool, an unknown killer may be lurking in the parents' genes. Cystinuria was the killer that shortened Mastiff lives and cardiomyopathy shortened American Boxer lives. Fortunately, by using DNA markers, breeders are eliminating these killers.

So what killer is lurking in the future for the Bichon Frise? That is unknown but breeders of the Bichon Frise can be prepared to challenge any killer by collecting DNA **now and in the future** on all Bichons owned and all puppies produced. Researchers emphasize that samples and data are needed for all dogs in a breed being studied, **whether the dog is affected or is healthy**. Otherwise, researchers cannot compare what is normal and what is not. When the call comes for DNA samples that are needed for genetic research of a disease threatening the Bichon Frise breed, you as a breeder can be prepared to provide resources and information from dogs living and dead. Researchers are currently using swabs that are 10 years old, seeing no age-related decline in the quality of the DNA provided the swabs were not exposed to any ambient humidity. For more information read, "Clearing the Lines", Matthew Schenker, AKC Gazette, February 2006, pp.35-39.

BFCA encourages Bichon breeders/owners to submit DNA to all 3 of the DNA banks explained in this article. Research projects can be delayed for up to 2 years while researchers collect DNA samples from dogs without DNA stored in a bank. Expedited research projects increase the likelihood of developing DNA based disease tests. To facilitate this process, the BFCA health committee will provide complimentary DNA swabs to Bichon breeders/owners at the health table at national specialties, funded by the Bichon health research fund. Detailed instructions on how to obtain DNA specimens and future calls for DNA samples will be posted on the "DNA bank" page of the health website [www.bichonhealth.org](http://www.bichonhealth.org).

**NOTE:** All data collected by genetic researchers is protected, so anything you share about your dog's health status and any diseases found in the course of looking at your dog's DNA, is kept confidential.

#### **AKC DNA Profile Program for Parentage**

AKC provides this service for you to register the DNA of your Bichons to verify parentage for genetic identity purposes, i.e. to verify future generations produced by the dogs. BFCA recommends that all Bichons used for breeding, male and female, participate in this program. AKC requires this program for stud dogs whose semen is collected for fresh-extended or frozen use, for imported breeding stock, and for frequently used sires (more than 3 litters in a calendar year or producing 7 or more litters in a lifetime). AKC's goal is to ensure that the AKC Registry is the most accurate in the world.

To participate, the owner orders a DNA test kit from AKC that contains one cheek swab with instructions on how to obtain the DNA sample. Once AKC receives the sample, they will profile that dog with a DNA Profile Number that will appear on that dog's registration record, certificates, and pedigrees. BFCA often provides the AKC DNA test kits for a reduced rate at the Bichon national specialty. For more

information and instructions on how to order a test kit, go to this web site: <http://www.akc.org/dna/certify.cfm>.

### **Canine Health Information Center (CHIC) DNA Repository**

The CHIC DNA bank is co-sponsored by the Orthopedic Foundation for Animals (OFA) and the AKC Canine Health Foundation (CHF). It stores either blood or cheek swab samples of DNA with corresponding pedigrees and health data. The goal of this program is to facilitate future canine research and testing by expeditiously providing DNA samples to scientists, which will reduce the incidence of inherited disease in dogs.

The fees for placing samples in the CNIC bank are \$5.00 per dog for cheek swab samples and \$20.00 per dog for blood samples, which cover the costs of data management, sample processing, and sample storage. CHIC encourages breeders/owners to view the fees as supporting canine health research. Once your dog's DNA is registered in the CHIC DNA bank, this act of responsibility and generosity will appear on your Bichon's OFA page as "DNA Sample Donated for Canine Health Research", along with the dog's list of OFA and CERF health tests.

If you are willing to participate in the CHIC DNA Repository, go to this site <http://www.caninehealthinfo.org/dnabank.html> to download the application form and brief health survey. You will be required to submit these 2 forms to CHIC to receive the DNA swab or blood collection kits, and to inform CHIC of any changes in your dog's health status in the future. If your dog develops a genetic disease, researchers need to be aware because they might be searching for DNA for that particular disease.

### **Bichon DNA Cache at Home Program**

The BFCA Health Committee is sponsoring "Bichon DNA Cache at Home" by providing free collection kits at national specialties for you to collect cheek swab DNA samples from your litters, as well as your individual dogs. You should collect 5 cheek swabs of DNA from each puppy born or each dog you own using sterile swabs and identifying each with a special, archival label. In addition to storing all the samples safely in your home, you should record the annual health level of each dog that you swabbed. When Bichon Frise DNA samples are needed for genetic research, you as a breeder will be prepared to provide needed samples from dogs living and dead, an important aid to successful research.

In addition to saving DNA on swabs, or instead of, you have the option of saving blood samples from your Bichons at home or sending the samples to the CHIC DNA Repository or directly to a researcher, but you will need the assistance of a veterinarian. Many researchers prefer blood which contains more DNA, but collecting several swabs with DNA on your dog will allow you to send a portion of them to a pertinent research project, and still keep some at home in your DNA cache.

The Bichon DNA swab kits contain 5 swabs per dog, envelopes in which to store the swabs, and archival labels for each swab. Detailed instructions for obtaining samples can be found at <http://bichonhealth.org/DNACache.asp>.

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### **Donations to BFCA Health Fund**

When renewing your BFCA membership, many of you donate to the BFCA health fund. Many give a lot, many give as much as they can. The committee members know only the total amount donated but applaud you for funding research and projects that will benefit the future health of the Bichon Frise. Periodically donations are made to celebrate an event, a title earned, a litter produced, or donations are made to honor a passed Bichon or loved pet. These donations are marked with a thank you note to the donor and an acknowledgement to the owner of the pet being celebrated or remembered. Carol Haines graciously writes this correspondence for the health committee.

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## **CHIC Report By Paula**

### **Fourth Quarter 2010**

#### **SUMMARY OF TOTAL CHIC NUMBERS AND UPDATES FOR BFCA TO DATE**

ORIGINAL QUALIFIERS	382	July 2007
TOTAL NEW QUALIFIERS	643	December 2010
UPDATES	127	December 2009
TOTAL UPDATES	182	December 2010

### **CHIC 5 STAR AWARDS**

A CHIC 5 Star Award is issued to any Bichon owned by a BFCA member with a CHIC number, has passed the CHIC tests, and additionally has obtained any two of the following (see <http://www.bichonhealth.org/CHIC.htm> for more information and applications):

1. Cardiac OFA certification by cardiologist or practitioner
2. Legg-Calve-Perthes OFA Certification
3. DNA registered with AKC
4. Urinalysis that tests for diabetes, bladder infection, crystals
5. Bile acid blood test to rule out liver shunt
6. Standard veterinary blood panel including:

- CBC (complete blood count): WBC, RBC, hemoglobin
- Electrolytes, BUN, Creatinine (to assess kidney function)
- Blood glucose level (to rule out diabetes)
- Liver enzymes (to rule out liver disease)
- Pancreas enzymes (to rule out pancreas disease.)

### **CHIC 5 STAR AWARDS**

The BFCA Health Committee has issued the CHIC 5 Star Awards to the following:

Merrymaker's Living Doll	Cindy Morey
Merrell Absolutely Spellbound	Mayno Blanding
Jasme Raggedy Ann 11/29/09	Mayno Blanding
Victoire's Cheers to Austin 11/30/09	Vickie Halstead
Victoire L'Amour Champagne Lace 11/30/09	Vickie Halstead
Victoire Juniper's Hot Tamale 11/30/09	Vickie Halstead
Victorie's Norwegian Red 11/30/09	Vickie Halstead
Victoire Melodie's Bleu Reign 11/30/09	Melodie Michel
Victoire Diamond Rio Citrine 12/02/09	David & Darlene Scheiris
Mybliss Galway's Irish Imp 06/06/10	Nancy Noonan
White Shadow Galaway Hide N'Seek 06/06/10	Nancy Noonan
Allure's U Chenoa Joe	Lisa Des Camps
Victorie Gerie No Lemon Gemstone 11/30/10	Vickie Halstead, Mary Wangsness
Paray Parasol of Knollwood 12/1/10	Susan & Dean Anneser
Paray's Secret Encounter 12/1/10	Susan & Dean Anneser