



February 16, 2010

Dennis B. Sprung, President, CEO
American Kennel Club
260 Madison Avenue
New York, NY 10016

1400 River Park Drive, Suite 100
Sacramento, CA 95815-4505
916-649-0599
fax 916-646-9156
staff@cvma.net
www.cvma.net

Dear Mr. Sprung,

Over the years, breeders, organized purebred groups, researchers and veterinarians have recognized unwanted genetic traits or genetic predispositions in various breeds. By working together, many of these traits have been identified and then modified to improve the health of the breed through selective breeding. A considerable amount of work still needs to be done in many areas to improve our existing population and, more importantly, to improve future generations of purebred dogs.

The Dalmatian Backcross Project is a good example of using genetic modification to eliminate a serious inherited defect. The Dalmatian breed has a medical problem of urinary calculi or bladder stones. Unlike other dog breeds, they are unable to metabolize purines to allantoin which can then be easily eliminated in the urine. Instead, they produce uric acid which may form stones in the urinary tract. These stones can be painful and may require surgery. This problem was probably developed as the breed was selected for its distinctive spotting pattern.

Since this is a single recessive gene inheritance defect, the medical problem can be corrected by introducing another breed that does not have this genetic trait, as demonstrated in the Project. In this case, the dog is a Pointer which has the genetic makeup to correct this metabolic disease. After using a Pointer-Dalmatian cross and then multiple generations of breeding to only Dalmatians, the phenotype of the Dalmatian is preserved while correcting for the gene that allows for the proper breakdown of the purines in the body. This can be verified in the offspring at a very young age so that only those without this defect should continue in the breeding program.

This Dalmatian Backcross Project could serve as a model for eliminating genetic defects in other breeds. A strict protocol of breeding and testing of offspring could be developed to guarantee the success of this program. A certification program within the AKC or a Dalmatian breed organization could do this and over time this serious metabolic disease would be eliminated.

The California Veterinary Medical Association endorses a scientific approach to correcting unwanted genetic traits or predispositions in a breed. This approach would lead to an improvement in the health of both the individual dog and the breed as a whole.

Sincerely,

Mark Nunez, DVM
CVMA President