An inevitable consequence of breeding is the occurrence of genetic problems. No one wants to produce affected dogs, yet some breeders and owners are quick to assign blame. There are no perfect dogs, and all dogs carry some detrimental genes.

The emotional reaction to producing a dog with a genetic disorder often follows what is called the grief cycle:

- Denial: This isn’t genetic. It was caused by something else.
- Anger: This isn’t right! Why is this happening to my dogs?
- Bargaining: My dog sired more than 100 other dogs that are healthy. So this one doesn’t really count, right?
- Depression: My kennel name is ruined. No one will breed to my dogs.
- And, finally, acceptance: My dog was dealt a bad genetic hand. There are ways to manage genetic disorders, breed away from this, and work toward a healthier breed.

Getting Beyond Denial
Unfortunately, many breeders can’t get beyond the denial stage. Some will hold to increasingly improbable excuses, rather than accept that a condition is genetic. They will falsely blame relatively rare disorders on common viruses, bacteria, or medications. The fact that these organisms or drugs are common to millions of dogs annually that do not have these disorders is not considered.

Some owners state that their veterinarian recommended not getting certified. Then these owners lull themselves into believing that since the dog wasn’t evaluated, it does not have hip dysplasia. The fact that a dog does not have an official diagnosis does not mean the dog is normal or “not affected.”

It is important to confirm diagnoses of genetic disorders with blood tests, radiographs, or pathology specimens. However, the primary concern should always be for the individual dog. If an affected dog is not suffering, it should not be euthanized simply to obtain a pathological diagnosis. The increased availability of non-invasive techniques has made diagnoses easier to obtain.

Once confirmation of a genetic disorder is made, denial sometimes becomes deception, which is not acceptable. There are breeders who actively seek to prevent diagnoses and later necropsies, but who eventually realize that their actions are detrimental to their breed, and in the long run to themselves.
how long dogs diagnosed with lymphoma will respond to doxorubicin based chemotherapy.

We have demonstrated that the genetic changes we continue to observe in several canine cancers are shared with the corresponding cancers in humans. These data provide strong evidence for a shared pathogenetic origin of several cancers affecting both human and dog. Analysis of our data has revealed we are well on the way towards development of more sophisticated molecular sub-classification of canine (and maybe even human) cancers, a process that should facilitate the emergence of improved and tailored therapies. Comparing the changes present in human and canine cancers is allowing us to refine key signatures to a subset that are shared, thus reducing the size of regions of interest. By considering the canine and human genomes in such a comparative context, we have identified that the genomic complexity of cancers may be less than human studies alone have suggested. An overview of these studies will be presented.

Overall these studies are advancing rapidly and indicate that the keys to unlocking some of nature’s most intriguing puzzles about cancers may be found in the genome of the dog. Finding such keys in the dog will also lead to improved understanding of human cancers. For 15,000 years the dog has been man’s best friend, in the 21st Century it is becoming increasingly evident that the dog is also man’s best biomedical friend.

Working together to improve our breeds

Reducing the stigma of genetic disease involves raising the level of conversation from gossip to constructive communication. Dealing with genetic disorders is a community effort. Each breeder and owner will have a different level of risk or involvement for a disorder. We do not get to choose the problems we have to deal with. Breeders should be supportive of others who are making a conscientious effort to continue breeding their dogs while decreasing the risk of passing on defective genes.

Breeders ought to follow up on the puppies they have placed. They should periodically contact their buyers and ask about the health of the dogs. Some breeders fear they will be castigated if a dog they placed develops a problem. However, the vast majority of owners of affected dogs are pleased that their breeder is interested in their dog, and in improving the health of the breed so that other affected dogs are not produced.

A breeder cannot predict or prevent every health problem. If an owner’s dog is discovered to have a problem, show your concern.

Breeders and breed clubs should be cooperative and supportive of researchers studying genetic disorders in their breed. Through research funded by breed clubs and by the AKC Canine Health Foundation (CHF), new genetic tests for carriers of defective genes are continually being developed.

The Canine Health Information Center (www.caninehealthinfo.org) was established by the CHF and the Orthopedic Foundation for Animals. CHIC is an online registry that works with the breed parent clubs to establish a panel of testable genetic disorders that should be screened for in each breed. The beauty of the CHIC concept is that dogs achieve CHIC certification by completing the health-checks. Passing each health test is not a requirement for certification.

CHIC is about being health conscious, not about being faultless.

My hope for each breed is that there will eventually be so many testable defective genes that it will not be possible for any dog to be considered “perfect.” Then we can put emotions aside and all work together on improving our breeds.

Breeders must lead the way to remove the stigma of genetic disorders. The applications for both the OFA and CHIC health registries include options that allow for open disclosure of all health-test results or semi-open disclosure listing only normal results. It is up to breeders to show that we are ready to move genetic disorders out of the shadows and check off the boxes for full disclosure.

More national clubs are having health seminars and screening clinics at their specialties. It was thought these events would scare away potential owners. We now know that without addressing the problems, in the long run, the breed may not be there for the owners.