

## **Bloat Initiative Request for Proposals (RFP)**

Requests for Proposals (RFP) are written to inform scientists of available funds to study specific areas of interest to a funding agency. The AKC Canine Health Foundation has written an RFP for the Bloat Research Initiative. Within this RFP are four topics of special interest that we would like researchers to take note of and focus on in their research.

They include:

- 1) Research that will integrate genetic background with identification of RNA, protein, or metabolic markers of bloat. Combining genetics with these other biological markers is necessary given the complexity of bloat; it is clear that it will not be possible to understand bloat comprehensively on the basis of genes alone. Attached is a document called "Beyond the Genome" that is a reference for these emerging areas of study and why they are important to understand.
- 2) Research that will thoroughly investigate the biological and physical manifestations of bloat and determine the underlying abnormalities and physiological disturbances. Through an enhanced understanding of what goes wrong during bloat we can identify new ways to treat or prevent bloat from occurring.
- 3) Research that will determine whether an abnormally slow movement of food through the gastrointestinal (GI) tract enhances susceptibility of dogs to bloat. If this is found to be true there are medications that can be used to correct this problem and prevent bloat from occurring.
- 4) Research that will determine whether stress enhances susceptibility of dogs to bloat. There is a plethora of anecdotal evidence that stress can lead to bloat. The GI tract is integrated with the nervous system, and the nerves in the GI tract control everything from the movement of food through the gut to local blood flow. We need to understand whether dogs that bloat have a defect in their GI nervous system that could explain stress-induced bloat. If this is found to be the case, medications that alter nervous system function could be used to prevent or treat bloat.

It is imperative that we support research in all of these areas so that we can create a comprehensive understanding of bloat. Research in each of these areas will deepen our understanding of the cause of bloat, and will ultimately lead to identification of the genetic risk variants in high-risk breeds.