

In 2023, the American Grand National became the first United States One Loft Race to offer the option of GPS tracking for birds entered into the Fall Race Series. This option will again be offered for the 2023 Young Bird Race Series.

Another ground breaking innovation will be added for the 2023 American Grand National Young Bird Race Series. For the first time ever in the world, all birds entered into a One Loft Race will be part of a comprehensive study of the effects of five genes thought to have an influence on race performance.

The study will be conducted by geneticists Dave Shewmaker and Tom Bishop. **Individual bird data will remain confidential and only aggregate data will be published. The staff of AGN will have no knowledge of the individual results of the DNA testing.** The individual results of the DNA testing will be disclosed only to the owners of their birds **after the conclusion of all races.** The genes to be studied are LDHA, DRD4, CRY1, F-KER and MSTN. The DNA could be used for future study of other genes.

DNA testing will be performed by Feanix Biotechnologies Inc. (FeanixBio.com) and will be subject to their “Sample Submission Terms and Conditions” listed below.

This study will be the first to examine a large contemporary group (in excess of 750 birds) for all five genes and for all training tosses plus four races from 127 miles to 330 miles. It will also be the first study of these five genes that takes into account not only race performance, but also losses. Previous studies have been limited to data from non-contemporary groups and with much smaller data sets. The results of this study should provide much better insight into which genotypes have a positive influence on race performance and at what distances.

Feanix Biotechnologies Inc. Sample Submission Terms and Conditions

1. DNA testing and analysis: Feanix Biotechnologies Inc. and all its subsidiaries will analyze and test the DNA contained in the sample(s) you provide. The results of the analysis may be used for research and development purposes, including but not limited to the development of new products, services, and technologies. You understand and acknowledge that the analysis and testing of DNA has some ambiguity and that the results of the analysis may not be 100% accurate or complete.
2. Use of DNA: You acknowledge and agree that Feanix Biotechnologies Inc. and all its subsidiaries will have full rights to the materials contained in the sample(s) you provide. This includes, but is not limited to, sample storage for future testing, experimental use for future testing and/or products, population studies, and mutation analysis. You understand that your sample(s) may be used in aggregate with other samples for research purposes, and that your personal information will be kept confidential and secure.
3. Liability: You understand and acknowledge that the analysis and testing of DNA carries certain risks, including the risk of inaccurate results, loss or damage to the sample(s), or breach of confidentiality. Feanix Biotechnologies Inc. and all its subsidiaries will take reasonable measures to mitigate these risks, but you acknowledge that they cannot guarantee the accuracy, completeness, or security of your DNA. By submitting a sample(s) for testing, you assume all risks associated with the testing and analysis of your DNA and release Feanix Biotechnologies Inc. and all its subsidiaries from any liability arising from the use of your DNA.
4. Revenue: You understand and acknowledge that Feanix Biotechnologies Inc. and all its subsidiaries may generate revenue from the testing and analysis of your sample(s), including but not limited to the sale of products and services developed using your sample(s). You acknowledge that you will not receive any compensation for the use of your sample(s), and that Feanix Biotechnologies Inc. and all its subsidiaries have the right to your sample(s), and DNA, for revenue-generating purposes.
5. Mutation information: You acknowledge and agree that Feanix Biotechnologies Inc. and all its subsidiaries may provide you with information about mutations or other genetic characteristics identified in your DNA analysis. You understand and acknowledge that this information is provided for informational purposes only and is not intended to diagnose, treat, or cure any disease or medical condition. You acknowledge that Feanix Biotechnologies Inc. and all its subsidiaries do not provide medical advice or treatment, and that any decisions you make based on the DNA analysis or mutation information provided are your own responsibility.
6. Acceptance of terms and conditions: By submitting a sample(s) for testing, you confirm that you have read and agree to these terms and conditions. You

acknowledge that you have had the opportunity to ask questions and seek legal or medical advice before submitting your sample(s) for testing. You acknowledge that you are over the age of 18 and have the legal capacity to enter into this agreement. If you are submitting a sample(s) on behalf of a minor or someone who lacks legal capacity, you acknowledge that you have the legal authority to do so and accept these terms and conditions on their behalf.