



**Thoroughbred  
Genetics**

- Bespoke Genetics Solutions -

# ABOUT US /


Thoroughbred Genetics was established in 2000 and is the oldest racehorse genetics company in the world. We provide complete professional consultancy for the most discerning international horse people and their success is important to us.

In 2006, via peer-reviewed scientific publication (Mitochondrial DNA: An important female contribution to thoroughbred racehorse performance) , we became the first organization to demonstrate a link between specific genes and racing performance. We have won many industrial awards, including a prestigious UK Department of Trade and Industry (DTI) SMART prize.


We have provided information and advice on the DNA/genetic status of winners of numerous GR 1 races, including: The Epsom Derby, Oaks, Japan Cup, Eclipse Stakes, Arc de Triomphe, International Stakes, Moyglare Stakes, Test Stakes, Beverly Hills Handicap, Matriarch Stakes, Yellow Ribbon Stakes, American Oaks, Beverly D Stakes, Breeders Cup Turf, Fillies Mile Stakes, Melbourne Cup, Doncaster Mile and New Zealand One Thousand Guineas.



## Why are some horses better than others?

 The Thoroughbred is an artificial and genetically diverse breed, as indicated by the variety of physiques, conformation and levels of performance. There are many different gene versions in the breed. This is a strength because it maintains genetic health but it is also a weakness. Too much variability leading to reduced desirable gene fixation in a horse results in lack of adaptation and poor performance. The majority of Thoroughbreds are 'mongrels' and lack specialization. The better performers carry sets of co-ordinated genes that contribute towards a clear performance category.


## How can Thoroughbred Genetics help?

 Achieving the correct balance between genetic health and gene fixation is important. Genetic management forms the basis of our DNA and performance data analyses, which are based on multiple gene marker approaches, incorporating the results of our scientific research.

We employ a series of key DNA tests and/or genetic databases that help co-ordinate or identify genetic combinations that support common speed, stamina, precocity and performance objectives in a horse. Our DNA analysis systems are like no other available and have been applied to winners of premier races such as the Japan Cup, Melbourne Cup and Epsom Derby. They describe the whole horse and not just a single component and give a complete overview at very competitive prices. They are refined and updated on a regular basis.

For example, we don't just assess a single gene for speed/stamina but consider larger gene sets. The difference between a successful sprinter or stayer is based on different sets of interacting genetic components not a single gene. There are not necessarily 'good' or 'bad' genes in these sets but genes that go together and genes that don't. Co-ordinated parts are used to make a Formula 1 racing car – horses are no different.

## Who are our clients?

 We provide services for breeders, owners, trainers and agents.

We help our clients breed or select 'complete equine packages' that have been assembled with coordinated genetic components to do a specific racing job and which are genetically adapted to higher levels of success within the most appropriate speed or stamina niche.

Our approach is the same for all clients, large or small. We supply genetic tests and services but go further by providing complete consultancy and discussion of results leading to better decision making rather than simply leaving clients with a basic answer.

The technology is explained  
in more detail at: **SHORT  
LINK AND QR CODE**

[www.thoroughbredgenetics.com](http://www.thoroughbredgenetics.com)





## DNA based products

EQ Profile

*All of the DNA products are based on the same universal technology. The way of describing all horses is the same. How the information is used and presented is different depending on what the horse is going to be used for.*

### EQ Profile **Mare** | Breeder

**OBJECTIVE:** Describes the genetic status of mares – her strengths and weaknesses and genetic leanings.

**CONCLUSION:** Provides a clear indication of a mare's breeding value and the best stallions for mating choices and the likely effect on the stamina, precocity and performance level of the progeny.

**PROCESS:** Application of our suite of DNA assessments and databases; a list of appropriate stallions and associated scores; a report explaining the findings; concluding advice.

**FEE: £380 GBP**

### EQ Profile **Sire** | Breeder

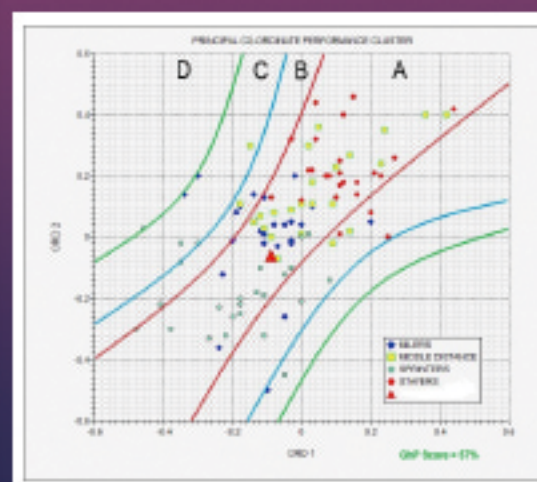
**OBJECTIVE:** Describes the genetic status of stallions – likely prepotency, breeding value and genetic strength and weaknesses.

**CONCLUSION:** Defines the types of mares that support specific stallions to greatest effect.

**PROCESS:** Application of our suite of DNA assessments and databases; a breakdown of the preferred types of mare; a report explaining the findings; concluding advice.

**FEE: £380 GBP**

### Performance Clustering



### EQ Profile **Racehorse** | Breeder | Owner/Trainer

**OBJECTIVE:** Determines the racing and breeding value and suitability of horses in training or young stock for sale or purchase.

**CONCLUSION:** A clear indication of their potential speed, stamina, optimum racing distance, genetic co-ordination and overall performance level.

**PROCESS:** Application of our suite of DNA assessments and databases; a report explaining the findings; relevant advice, as requested.

**FEE: £300 GBP**

## DATA<sub>products</sub>

EQ Data

*Our research into the DNA status of thousands of horses has generated huge numbers of data and allowed us unique insights into the genetic structure of the Thoroughbred population. Trends from this data can be applied to improve selection and identification of horses without the need to employ DNA assessments. This may not be as comprehensive as when DNA analysis is also used but has beneficial application in areas where cost may be an issue or where it may not be possible to apply DNA analysis easily, for instance at the sales or in situations where mass racing form or performance data are required.*

 EQ Data | Breeder Owner/Trainer

**OBJECTIVE:** Use of DNA-derived database information relating to the EQProfile analyses (excluding DNA tests) to describe the approximate genetic status of a horse.

**CONCLUSION:** Provide advice on breeding and racing suitability of horses at the sales and on the racecourse.

**PROCESS:** A database assessment of a single horse or group of horses is provided in the form of a score and explanatory table.

**FEE: £95 GBP**

## Priority Service Contracts

PSCs

*There are many instances where owners and breeders have a requirement for a combination of our services and analyses. They may need application throughout the year in relation to breeding, sales and racing animals - an ongoing requirement for our services.*

 PSCs | Breeder Owner/Trainer

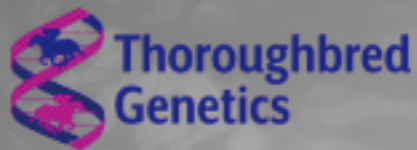
**We provide fixed annual contracts that utilize all our genetic tools when needed. These include:**

- > DNA analyses applied to all horses
- > Sales applications
- > Racing applications
- > Priority access to new data and prototype tests
- > Priority at busy times of the year
- > General close liaison with their staff and pedigree advisors
- > Provision of genetics advice as needed at all times

**We can tailor a contract accordingly. In all instances, we maintain strict client confidentiality.**

**FEE: Private**





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