

This book is a translated version of the Japanese original published in October 2025.

Introduction

In exploring the Thoroughbred pedigrees, I have posited the significance of the maternal lineage as a major hypothesis. The previous 3rd edition of this book carried the tree diagrams covering all the lineages of the horses foaled this century winning GI races held until the end of 2020. Taking four and a half years after its publication, I have finally managed to publish this 4th edition.

During the said period, I continued updating the diagrams. Those carried in this 4th edition covers all the horses foaled this century winning GI held until September 14 of this year (2025), serving as supplementary materials for the discussion in “Chapter 1: Significance of Maternal Lineage.”

In the meantime, the diagrams of the paternal lineages carried in the 1st and 2nd editions are not carried in the previous 3rd or this 4th edition. As explained below, while there is value in discussing the “sire” in the scientific exploration of the Thoroughbred ability, I believe that there is no value in discussing the “paternal lineage.”

I think that the individuals to utilize the diagrams of maternal lineage in this book, which are the culmination of my blood, sweat and tears, are breeders, especially broodmare owners. By adding each of their broodmares to the diagram of the lineage concerned, it would be possible for them to see how many GI winners are present and what types of winners are represented around there. Viewing it from this perspective may reveal hints regarding the broodmares which they should acquire for their own breeding and regarding the desirable mating patterns.

Furthermore, setting aside fans who primarily engage with the racing through betting, those who follow a given horse over a period of time, including the fractional owners who track a specific horse as a “line” rather than a “point,” would undoubtedly benefit from taking a step further to adopt a perspective that views the living creatures as scientifically as possible. This approach might even help them discover new directions when selecting horses in which they invest no small amount of money.

On the other hand, a lot of the pedigree theories that remain scientifically questionable exists, so that I cannot overlook them. Under the circumstances, the ongoing scientific enlightenment is also a purpose behind writing this book.

“Why does the inbreeding carry inherent risks?”

I asked the above question in the previous edition’s introduction, but my impression remains unchanged, that is to say, not many within the racing world, including the breeding circles, scientifically understand the reason.

“Why can the bay or chestnut be born even if both of its parents are the grey?”

We are still lacking in the thinking with the word “why?” Understanding the inheritance mechanism of foaling the non-grey with both grey parents means also understanding the absolute principle of inheritance, i.e. “Mendel’s laws,” but the reality is that such fundamentals are being neglected.

From these perspectives, this 4th edition is structured as follows:

Chapter 1: Significance of Maternal Lineage (page 2~)

Chapter 2: Inbreeding and Genetic Diversity (page 25~)

Chapter 3: Various Topics on Genetics (page 58~)

Chapter 4: Future of Breeding Circles (page 63~)

This edition serves as a continuation of previous editions, reaffirming the arguments developed in them and incorporating new findings, and therefore includes the reprinted contents. This is because the topics I wish to discuss are not so diverse, and I would like to examine them more closely.