

Preface

Although the science of genetics has its origins in the work of Gregor Mendel in the mid-nineteenth century, various theories of inheritance preceded Mendel. These theories generally assumed that there existed an inheritance of acquired characteristics: the belief that individuals inherit traits that have been strengthened in their parents. Today, the theory is commonly associated with Jean-Baptiste Lamarck, who used this pattern of inheritance to explain the evolution of various traits within species (these changes are now understood to be the product of natural selection rather than a product of soft inheritance).

The modern science of genetics traces its roots to the observations made by Gregor Johann Mendel, a German-Czech Augustinian monk and scientist who made detailed studies of the nature of inheritance in plants. In his paper "Versuche über Pflanzenhybriden" ("Experiments on Plant Hybridization"), presented in 1865 to the Brunn Natural History Society, Gregor Mendel traced the inheritance patterns of certain traits in pea plants and showed that they could be described mathematically. Although not all features show these patterns of Mendelian inheritance, his work suggested the utility of the application of statistics to the study of inheritance.

—Author