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Genetics is a young science, but since Mendel's discoveries it has advanced rapidly. Today, the study of the transmission of characters takes place at the molecular level.

602 GENETICS OF THE MOUSE by Jean-Louis Guénet.

The mouse has become an almost perfect model for studying the genetics of man, analysing human diseases and developing new therapies.

616 GENES IN PIECES by Antoine Danchin and Piotr P. Slonimski.

In contrast to bacterial genes, the genes of higher organisms are split into pieces. What is the reason for this and how can they function?

630 GENETICS ENGINEERING AND BIOMEDICAL INDUSTRIES

by Paul Tolstoshev and Jean-Pierre Lecocq.

The techniques of modern genetics have made it possible to produce biological substances useful to physicians, especially for the treatment of some blood diseases. They have also made it possible to detect many hereditary diseases.

642 THE ORGANIZATION OF GENETIC INFORMATION by Philippe Kourilsky and Gabriel Gachelin.

The genetic material of higher organisms is crowded with repetitions and long sequences of no apparent use. Could this strange organization be the origin of sudden leaps in the evolution of DNA?

654 THE GENETIC HISTORY OF THE HUMAN SPECIES by Marcel Blanc.

There are two established facts in human genetics : the species Homo sapiens is extraordinarily close to the chimpanzee, and genetically it is so barely differentiated that there is no sense in dividing humanity into "races".

670 THE STRUCTURES OF DNA by Claude Hélène.

The chemical substance of genes, DNA, has the configuration of a double helix. It is now known that this helix can exist in several states which modulate gene activity in the cells.

686 BACTERIAL GENETICS by Maxime Schwartz.

Nowadays bacterial genetics is an exceptional tool in molecular biology, allowing one to make inventories of enzymes and predictions about the structure and function of biological molecules.

698 THE TRANSMISSION OF BEHAVIOURS by Jean Médioni and Gérard Vaysse.

What is the share of genes and environment in the transmission of behaviour in animals and in man? Their action is very often indissociable thus making worthless the debate on innate and acquired behaviour.

718 THE HEREDITY OF HUMAN DISEASES by Josué and Nicole Feingold.

What is the contribution of genetics in the development of many human diseases? The answer is less precise than one would imagine...

734 THE EUGENIC TEMPTATION by Pierre Thuillier.

To preserve and improve "the most gifted races", such was the objective of the eugenic doctrine elaborated by Francis Galton at the end of the 19th century. And today?

752 THE IMPROVEMENT OF PLANTS by Max Rives.

Plants which are more resistant to disease have bigger fruits or greater yields : the progress in agriculture is largely due to the creation of new varieties, genetically improved.