T.C. HSU

Human and Mammalian Cytogenetics

A Historical Perspective

Contents:

Introduction.— The Knights of the Dark Age.— The Hypotonic Miracle.— From 48 to 46.— The Foundation of Somatic Cell Genetics.— Funny Looking Kids.— Of Beans, Weeds and Human Cytogenetics.— Sex and the Single Chromosome.— The Dencer Conference and Beyond.— The Occasional Lion Tamer.— The Pathologist Who Went Astray.— Anomalous Sex Chromosome Systems.— The Somatic Cell Genetics Conferences.— Mammals for Cytogeneticists.— Old Cultures Never Die? — The Bandwagon.— In Situ Hybridization: Marriage Between Molecular Biology and Cytology.— Junk DNA and Chromatin?— The Giemsa Magic.— The Parasexual Reproduction.— Interphase Chromosomes.— Cancer Chromosomes.— Chromosomes and Mammalian Phylogeny.— The Future.— Suggested Readings.— References.— Index.

Few areas of research have witnessed such remarkable advances as seen in human and mammalian cytogenetics in the past two decades. It has been transformed into a virtually indispensable tool in various branches of medicine, in genetic counseling, and in cancer therapy, and has also become important in human genetics, somatic cell genetics, cell biology, and evolutionary science.

Human and Mammalian Cytogenetics describes the events that led to the explosion going on today in this area. Here is the story "behind the story" of the major discoveries and the circumstances surrounding them, and the mistakes. It is a highly personal and an engagingly fresh approach to the history of cytogenetics, written by one of the central figures in its development. A blend of personal reminiscences, history and much wisdom, the book achieves a concise account of modern mammalian cytogenetics as perspective and unique as the author himself. This is the kind of scientific history book that only comes along once in a decade. It is a book that should be read by every biologist, and which will surely inspire many young readers to become the biologists of the future.

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