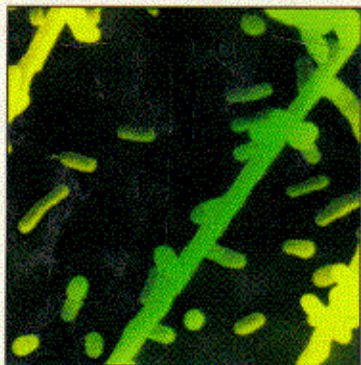


HORIZONTAL GENE TRANSFER

Edited by Michael Syvanen and Clarence I. Kado

In recent years there has been an increase in the number of observed cases of naturally occurring horizontal gene transfer. This phenomenon was previously considered merely an oddity of the life of some micro-organisms or a series of tricks played by research geneticists on unsuspecting laboratory animals. However, DNA elements have now been observed transferring into and between higher organisms such as plants, fungi and metazoans, including humans. Horizontal gene transfer is now a rapidly growing area of research and has a variety of academic and practical implications in areas such as taxonomy, epidemiology, agriculture and human health. Ultimately, the phenomenon of horizontal gene transfer could profoundly affect fundamental concepts of evolutionary theory.



This book brings together for the first time evidence and material pertaining to horizontal gene transfer among all of life's kingdoms. An international list of contributors, all of whom are scientists with active research programs in the area of natural horizontal gene transfer, describe the latest findings. These include evidence from microbiology, studies on *Drosophila melanogaster* and molecular evolution studies. The potential explanatory power of horizontal gene transfer is explored as it relates to the fields of plant and metazoan taxonomy, palaeontology and phylogentic reconstruction.

This book will be of great interest to any researcher in medical or biological sciences whose work is affected by horizontal gene transfer, as well as scientific researchers in government and industry.

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The cover image shows a scanning electron micrograph of the bacterium *Agrobacterium tumefaciens* mating with a filamentous Actinomycete.

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