

Esser et al.: Plasmids of Eukaryotes

Plasmids were long thought to occur only in the bacteria. However, it is now evident that plasmids, or replicative forms of DNA that structurally and experimentally resemble them, exist in eukaryotic organisms as well, particularly in fungi and higher plants. This book provides the first comprehensive review of plasmids in eukaryotes. After a general introduction, eukaryotic plasmids are listed according to their origin, and their structure and function are discussed in detail. Subsequent chapters treat the use of eukaryotic plasmids in molecular cloning and biotechnology, and the development of "biotechnical genetics," which includes genetic manipulation involving not only recombinant DNA technology, but also protoplast fusion, embryo transplantation, and directed mutagenesis. Its unique combination of the most recent scientific data and the relevant historical and experimental background make this book a valuable reference source for the basic researcher as well as for industrial scientists and engineers interested in biotechnology.

