

PLASMIDS

BIOLOGY AND IMPACT IN BIOTECHNOLOGY AND DISCOVERY

Explore the remarkable discoveries in the rapidly expanding field of plasmid biology

Plasmids are integral to biological research as models for innumerable mechanisms of living cells, as tools for creating the most diverse therapies, and as crucial helpers for understanding the dissemination of microbial populations. Their role in virulence and antibiotic resistance, together with the generalization of "omics" disciplines, has recently ignited a new wave of interest in plasmids.

This comprehensive book contains a series of expertly written chapters focused on plasmid biology, mechanistic details of plasmid function, and the increased utilization of plasmids in biotechnology and pharmacology that has occurred in the past decade.

Plasmids: Biology and Impact in Biotechnology and Discovery serves as an invaluable reference for researchers in the wide range of fields and disciplines that utilize plasmids and can also be used as a textbook for upper-level undergraduate and graduate courses in biotechnology and molecular biology.

"The study and utilization of plasmids is experiencing renewed interest. This book is a comprehensive and illustrative source where readers can find the latest advances in all aspects of plasmids, from the basic understanding of their biology to their utilization as tools in the modern laboratory."

Luis A. Actis, Professor and Chair,
Department of Microbiology,
Miami University



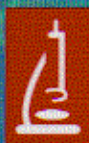
MARCELO E. TOLMASKY is a biology professor at California State University Fullerton and the director of the Center for Applied Biotechnology Studies. His current research focuses on several basic and applied aspects of plasmid-mediated multidrug resistance and virulence. He is co-editor of *Enzyme-Mediated Resistance to Antibiotics: Mechanisms, Dissemination, and Prospects for Inhibition* (ASM Press).



JUAN C. ALONSO is a research professor at the Centro Nacional de Biotecnología (CSIC) of Madrid, Spain. His current research focuses on genomic stability in Firmicutes. Using genetic, cytological, biochemical, and biophysics approaches, the long-term goal of Dr. Alonso's research is to define the molecular steps in the dynamic process of homologous recombination and DNA segregation.

"*Plasmids: Biology and Impact in Biotechnology and Discovery* compiles information on the recent progress achieved in the field of plasmid biology. It constitutes a wealth of inextinguishable knowledge and is an important reference for all scientists working in the expanding and interconnected world of modern biology."

Manuel Espinosa, Professor *ad honorem*,
Centro de Investigaciones Biológicas,
Consejo Superior de Investigaciones
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