

Microbes produce an extraordinary array of defense systems. These include bacteriocins, a class of anti-microbial molecules with narrow killing spectra, produced by bacteria. The book describes the diversity and ecological role of bacteriocins of Gram-positive and Gram-negative bacteria, presenting a new classification scheme for the former and a state-of-the-art look at the role of bacteriocins in bacterial communication. It discusses the molecular evolution of colicins and colicin-like bacteriocins, and provides a contemporary overview of archaeocins, bacteriocin-like antimicrobials produced by archaeobacteria. Furthermore, various modeling (in silico) studies elucidate the role of bacteriocins in microbial community dynamics and fitness, delving into rock-paper-scissors competition and the counter-intuitive survival of the weakest. The book makes compelling reading for a multi-faceted scientific audience, including those working in the fields of biodiversity and biotechnology, notably in the human and animal health domain.

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