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Nota di contenuto	Studying evolution by using genome sequence data / Jeffrey G. Lawrence -- Population dynamics of bacterial pathogens / Martin C.J. Maiden and Rachel Urwin -- The study of microbial adaptation by long-term experimental evolution / Vaughn S. Cooper -- The contribution of pathogenicity islands to the evolution of bacterial pathogens / Bianca Hochhut, Ulrich Dobrindt, and Jorg Hacker -- Black holes and antivirulence genes: selection for gene loss as part of the evolution of bacterial pathogens / William A. Day and Anthony T. Maurelli -- Evolution of pathogens in soil / Rachel Muir and Man-Wah Tan -- Experimental models of symbiotic host-microbial relationships: understanding the underpinnings of beneficence and the origins of pathogenesis / Margaret J. McFall--- Ngai and Jeffrey I. Gordon -- The evolution of bacterial toxins / O. Colin Stine and James P. Nataro. Function, evolution, and classification of macromolecular transport systems / Paul J. Planet, David H. Figurski, and Rob DeSalle -- The evolution of antibiotic resistance / Dean Rowe-Magnus and Didier Mazel -- Group A Streptococcus and Staphylococcus aureus: evolution, reemergence, and strain diversification / Sean D. Reid [and others] -- Evolution of enteric pathogens / Ruiting Lan and Peter R. Reeves -- Mycobacterial evolution: insights from genomics and population genetics / Alexander S. Pym and Peter M. Small -- The evolution of human fungal pathogens / Judith N. Steenbergen and A. Casadevall.

Sommario/riassunto

Annotation examines evolution of microbial pathogenesis, capitalizing on explosion of knowledge of molecular mechanisms and microbial genome sequencing;covers general concepts of microbial evolution including gene acquisition, gene loss, and concept of microbial species; presents information on broad areas of evolution of pathogenesis, including evolution of pathogenic microbes in soil, evolution of microbe-plant interactions, human specific pathogens, zoonotic infections, biofilm formation in the environment and pathogenesis, and co-evolution of pathogens and the immune system;considers evolution of pathogenic systems found in a variety of microbes or specific subsets of pathogens.