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Nota di contenuto	I. General Considerations. Structure and function of mucosal surfaces / Jeff P. Pearson and Iain A. Brownlee -- Defensins and other antimicrobial peptides: innate defense of mucosal surfaces / Alexander M. Cole and Tomas Ganz -- Mechanisms of adaptive immunity that prevent colonization at mucosal surfaces / Marcela F. Pasetti, Rosangela Salerno-Goncalves and Marcelo B. Sztein -- In situ monitoring of bacterial presence and activity / Claus Sternberg [and others] -- II. Colonization of the respiratory tract. Role of phosphorylcholine in respiratory tract colonization / Jeffrey N. Weiser -- Sialylation of the gram-negative bacterial cell surface / Michael A. Apicella and Paul A. Jones -- Competitive and cooperative interactions in the respiratory microflora / Adam J. Ratner -- Bacterial adherence and tropism in the human respiratory tract / Mumtaz Virji -- Immunoglobulin A1 proteases of pathogenic and commensal bacteria of the respiratory tract / Mogens Kilian and Jesper Reinholdt. Genetic exchange in the respiratory tract / Christopher G. Dowson -- Regulation in response to environmental conditions / Peggy A. Cotter -- III. Colonization of the gastrointestinal tract. Microbiota of mucosal surfaces in the gut of monogastric animals / Gerald W. Tannock -- Interactions of commensal flora with the human gastrointestinal tract / James P. Nataro -- Quorum sensing in the gastrointestinal tract / James B. Kaper, Christopher Pritchett and Jane Michalski -- Role of the mucous layer in bacterial colonization of the intestine / David C. Laux, Paul S. Cohen and Tyrrell Conway -- Role of flagella in mucosal

colonization / Jorge A. Giron -- Tissue tropism in intestinal colonization / Elizabeth L. Hartland [and others] -- Aggregation and dispersal on mucosal surfaces / James P. Nataro and Angela Jansen -- Signal transduction in the intestinal mucosa / Beth A. McCormick. -- Pathogen gene expression during intestinal infection / Susan M. Butler, Anna D. Tischler and Andrew Camilli -- Mechanisms of Salmonella enterica serotype typhimurium intestinal colonization / Caleb W. Dorsey [and others] -- Colonization and invasion of humans by Entamoeba histolytica / Kristine M. Peterson and William A. Petri, Jr -- IV. Colonization of the genitourinary tract. Role of phase and antigenic variation in Neisseria gonorrhoeae colonization / Amy N. Simms and Ann E. Jerse -- Allelic variation of the FimH lectin of Escherichia coli type 1 fimbriae and uropathogenesis / David L. Hasty [and others] -- Fimbriae, signaling, and host response to urinary tract infection / Niamh Roche [and others] -- Urease, urolithiasis, and colonization of the urinary tract / Harry L.T. Mobley -- Polymicrobial bacteriuria: biofilm formation on foreign bodies and colonization of the urinary tract / David J. Stickler -- Colonization of the vagina and urethral mucosa / Gregor Reid.

Sommario/riassunto

State-of-the-art presentation of the opposing evolutionary forces that ultimately determine the health of host organisms and survival of pathogenic microorganisms. As mammalian defenses evolve to protect against infection, pathogens are simultaneously evolving to circumvent new barriers and gain access to valuable host nutrients and energy. Written by experts in the field, this volume is an in-depth examination of the complex ecosystems of the mammalian mucosa and the successful adaptations of microorganisms that enable them to effectively colonize these surfaces.
