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Titolo	Cellular Microbiology // Pascale Cossart, Patrice Boquet, Staffan Normark, Rino Rappuoli [editors]
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Edizione	[Second edition.]
Descrizione fisica	1 online resource (xxx, 593 pages) : illustrations
Soggetti	Virulence (Microbiology) Infection Host-bacteria relationships Pathology, Cellular Bacterial genomes
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Microbial pathogens: an overview / Pascale Cossart, Javier Pizarro-Cerda, and Marc Lecuit -- Bacterial human pathogen genomes: an overview / Stephen Bentley [and others] -- Cell biology: an overview / Dana Philpott and Patrice Boquet -- Extracellular matrix and host cell surfaces: potential sites of pathogen interaction / Klaus T. Preissner and G. Singh Chhatwal -- Bacterial adherence to cell surfaces and extracellular matrix / B. Brent Finlay and Michael Caparon -- Molecular basis for cell adhesion and adhesion-mediated signaling / Benjamin Geiger [and others] -- Bacterial signaling to host cells through adhesion molecules and lipid rafts / Guy Tran Van Nhieu, Philippe, J. Sansonetti, and Frank Lafont -- Host cell membrane structure and dynamics / Lynda M. Pierini and Frederick R. Maxfield -- Membrane traffic in the endocytic pathway of eukaryotic cells / Michela Felberbaum-Corti, Raluca Flukiger-Gagescu, and Jean Gruenberg -- Where to stay inside the cell: a homesteader's guide to intracellular parasitism / David G. Russell -- The actin cytoskeleton: regulation of actin filament assembly and disassembly / Frederick S. Southwick -- Bacterial manipulation of the host cell cytoskeleton / Jennifer R. Robbins [and others] -- Bacterial toxins / Mariagrazia Pizza, Vega

Massignani, and Rino Rappuoli -- Bacterial protein toxins and tools in cell biology and pharmacology / Klaus Aktories -- Type III secretion systems in animal- and plant-interacting bacteria / Matthew S. Francis [and others] -- Bacterial type IV secretion systems: DNA conjugation machines adapted for export of virulence factors / Peter J. Christie and Antonello Covacci -- Induction of apoptosis by microbial pathogens / Jeremy E. Moss, Ilona Idanpaan-Heikkila, and Arturo Zychlinsky -- Interaction of pathogens with the innate and cellular microbiology adaptive immune system / Emil R. Unanue and Ennio De Gregorio -- Electron microscopy / Chantal de Chastellier -- New tools for virulence gene discovery / Timothy K. McDaniel and Raphael H. Valdivia -- Genome-wide approaches to studying prokaryotic biology / Su L. Chiang and Stephen Lory -- Cell biology of virus infection / Mark Marsh -- Use of simple nonvertebrate hosts to model mammalian pathogenesis / Costi D. Sifri and Frederick M. Ausubel.

Sommario/riassunto

The term “cellular microbiology” was coined in 1996 to identify an emerging discipline integrating the fields of cell biology and microbiology. The advent of genomics, proteomics, and postgenomics has resulted in more widespread understanding of the field of cellular microbiology among scientists. Cellular Microbiology, 2nd Edition, considers genomic information and advances in technology in an updated examination of this burgeoning area of important research. The second edition of this successful textbook offers five new chapters that comprehensively cover bacterial human pathogen genomes; structure and dynamics of the host cell membrane; study of prokaryotic biology using genome-wide approaches; cell biology of virus infection; and use of simple nonvertebrate hosts to model mammalian pathogenesis. All chapters are revised and organized like the first edition to provide fundamental details of each discipline along with the cellular microbiology aspects.--
