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BIOFILM FORMATION IS PROGRAMMED IN THE SENSE THAT REGULATED SYNTHESIS OF EXTRACELLULAR MATRIX COMPONENTS IS INVOLVED, BUT IT IS ALSO GOVERNED BY ADAPTIVE RESPONSES BIOFILM FORMATION IS LARGELY GOVERNED BY ADAPTIVE RESPONSES OF INDIVIDUAL BACTERIA, BUT GROUP-LEVEL ACTIVITIES ARE ALSO INVOLVED; BIOFILM FORMATION TERMINATES IN RESPONSE TO SPECIFIC ENVIRONMENTAL CUES; CONCLUDING REMARKS; ACKNOWLEDGMENTS; CITATION; REFERENCES; Chapter 4: Division of Labor in Biofilms: the Ecology of Cell Differentiation; INTRODUCTION; COOPERATION, SPECIALIZATION, AND THE DIVISION OF LABOR BACTERIAL MULTICELLULARITY AND THE DIVISION OF LABOR DIVISION OF LABOR IN BIOFILMS; BENEFITS OF DIFFERENTIATION AND DIVISION OF LABOR; LIFE CYCLE BIOLOGY: THE ECOLOGY OF CELL DIFFERENTIATION; CONCLUSIONS; ACKNOWLEDGMENTS; CITATION; CITATION; REFERENCES; Chapter 5: Candida albicans Biofilm Development and Its Genetic Control; BIOFILM STRUCTURE AND DEVELOPMENT; CELL MORPHOLOGY AND BIOFILM FORMATION; BIOFILM-ASSOCIATED GENE EXPRESSION; THE CELL SURFACE AND ADHERENCE; EXTRACELLULAR MATRIX MATERIAL; BIOFILM METABOLISM; BIOFILM DRUG RESISTANCE; ACKNOWLEDGMENTS; CITATION; REFERENCES Chapter 6: Candida Biofilms: Development, Architecture, and Resistance INTRODUCTION; EXPERIMENTAL MODELS OF CANDIDA BIOFILMS; BIOFILM MORPHOLOGY AND ARCHITECTURE; FACTORS INFLUENCING BIOFILM FORMATION AND ARCHITECTURE; ANTIFUNGAL SUSCEPTIBILITY PROFILE OF CANDIDA BIOFILMS ; MECHANISMS OF RESISTANCE OF CANDIDA BIOFILMS ; CONCLUSION; ACKNOWLEDGMENTS; CITATION; REFERENCES; Chapter 7: Biofilm Formation by Cryptococcus neoformans; INTRODUCTION; POLYSACCHARIDE CAPSULE IN BIOFILM FORMATION; RESISTANCE TO HOST IMMUNE MECHANISMS AND ANTIFUNGAL THERAPY; THERAPEUTIC APPROACHES CONCLUSIONS AND FUTURE PERSPECTIVES

Sommario/riassunto

A comprehensive introduction to this exciting and developing field.