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Nota di contenuto	Preface -- 1 Introduction -- 2 The continuously expanding universe of Entamoeba -- 3 The genomics of Entamoebae: insights and challenges -- 4 Multilocus sequence typing system (MLST): Genetic diversity and genetic components to virulence -- 5 The tRNA gene-linked STRs and other genetic typing methods -- 6 Genetic manipulation techniques -- 7 Surveying Entamoeba histolytica transcriptome using massively parallel cDNA sequencing -- 8 Ribosomal RNA Genes and their Regulation in Entamoeba histolytica -- 9 Small RNAs and regulation of gene expression in Entamoeba histolytica -- 10 The Biology of Retrotransposition in Entamoeba histolytica -- 11 Entamoeba histolytica: Bridging the gap between environmental stress and epigenetic regulation -- 12 Phagocytosis in Entamoeba histolytica -- 13 Signalling pathways in E. histolytica -- 14 Transmembrane Kinases and their role in E. histolytica pathogenesis -- 15 Cell surface molecules as virulence determinants in Entamoeba histolytica -- 16 Mechanism of cell division in Entamoeba histolytica -- 17 Molecular basis of the trafficking of cysteine proteases and other soluble lysosomal proteins in Entamoeba histolytica -- 18 Mitosomes in

Entamoeba histolytica -- 19 Metabolomic analysis of Entamoeba biology -- 20 Glucose metabolism and its controlling mechanisms in Entamoeba histolytica -- 21 Structural Biology of Cysteine Biosynthetic Pathway Enzymes -- 22 Archetypical and specialized DNA replication proteins in Entamoeba histolytica -- 23 Pathology, pathogenesis and experimental amebiasis -- 24 Innate Host Defenses in the Gut -- 25 Cysteine peptidases in pathogenesis -- 26 Host immunity and tissue destruction during liver abscess formation -- 27 The Effect of E. histolytica on Muc2 Mucin and Intestinal Permeability -- 28 Human Genetic Susceptibility to Amebiasis -- 29 Immune Response in Human Amoebiasis: a protective response? -- 30 Metronidazole and the Redox Biochemistry of Entamoeba histolytica -- 31 Thioredoxin Reductase and its Role as a New Drug Target -- 32 Drug development: old drugs and new lead -- 33 HETEROCYCLIC LEAD COMPOUNDS AGAINST AMOEBIASIS.

Sommario/riassunto

This book documents and presents new developments in the study of amebiasis, one of the neglected tropical diseases. Nearly 50 million people worldwide are infected with the pathogen Entamoeba histolytica, causing large-scale morbidity and mortality particularly in developing countries. This book will help clinicians for better diagnosis and management of the disease, researchers for initiating research projects on some of the poorly understood aspects of the disease and the pathogen, and students for updating their knowledge. The subjects covered range from genomics and molecular and cell biology to drug resistance and new drug development, highlighting major advances in recent years in our understanding due to rapid progress in genomic and other biomedical technologies, such as visualization of molecular processes. Most of the chapters provide recent information based on latest publications. A few chapters describe some of the critical methodological issues that will be helpful for students and researchers interested in getting into the field. The contributing authors include almost all the active researchers and clinicians from around the world. This book will be a useful primary material and a valuable source of information for anyone interested in understanding amebiasis, its diagnosis, and treatment. It will also be useful to those who are interested in learning about the biology of early branching eukaryotes and protist pathogens.