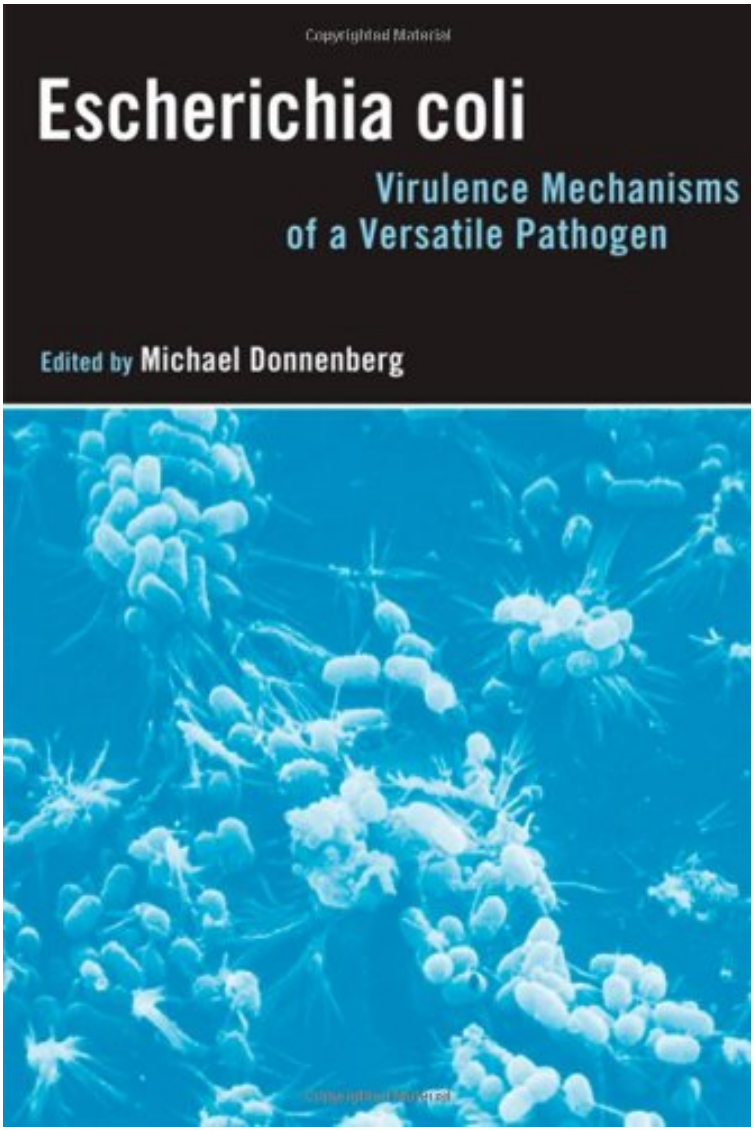
E. coli: Genomics, Evolution and Pathogenesis

From Academic Press
*DOC | *audiobook | ebooks | Download PDF | ePub*



#11347279 in Books 2002-09-24Original language:EnglishPDF # 1 1.08 x 6.48 x 9.34l, 1.10 #File Name: 0122207513417 pages | File size: 28.Mb

From Academic Press : E. coli: Genomics, Evolution and Pathogenesis before purchasing it in order to gage whether or not it would be worth my time, and all praised E. coli: Genomics, Evolution and Pathogenesis:

Although most strains of E. coli bacteria are harmless and live in the intestines of healthy humans and animals, several strains can produce powerful toxins and cause severe illness in humans. This versatile pathogen is best known for

being transmitted to humans through contaminated foods - such as undercooked meat and unpasteurized fruit juice - and has attracts much attention when serious outbreaks occur. E. coli is capable of causing a wide variety of diseases - from urinary tract infections to meningitis. A considerable amount of media coverage has recently been devoted to one particular strain of E. coli, responsible for an estimated 73,000 cases of infection and 61 deaths in the United States each year. Knowing more about the biology, the evolution, and the genetic basis of this pathogen is crucial to future prevention of infection and illness. Pathogenic E. coli is a unique, comprehensive analysis of the biology and molecular mechanisms that enable this ubiquitous organism to thrive. Leading investigators in the field discuss the molecular basis of E. coli pathogenesis followed by chapters on genomics and evolution. Detailed descriptions of distinct strains reveal the molecular pathogenesis of each and the causes of intestinal and extra-intestinal infections in humans. Pathogenic E. coli concludes with a presentation of virulance factors, common to two or more pathotypes. This unique collection presents timely and vital information on understanding the inner workings of E. coli, which will lend key insights into disease prevention research.Single source of information of E. coli pathogenesisExpert authorsComprehensive coverageMolecular mechanismsBiology, evolution and genomicsRecent advances

"...a thorough, timely treatise on the current state of the field for researchers and advanced graduate students in bacterial pathogenesis. It is also an excellent and valuable reference work of general interest to microbiologists, infectious disease specialists, and food safety experts, and should be included in microbiology and medical reference libraries." -ASM NEWS, June 2003 "...a very informative book which is well presented and would be excellent value for money for scientists generally interested in the basis of microbial pathogenesis, as well as E. coli specifically." -- MICROBIOLOGY TODAY, August 2003About the AuthorMichael Donnenberg, MD is a Professor of Medicine and of Microbiology and Immunology at the University of Maryland. Dr. Donnenberg is a graduate of the Columbia University College of Physicians and Surgeons. He completed residency in Internal Medicine at what is now the Bayview Campus of Johns Hopkins and fellowship in Infectious Diseases at Tufts/New England Medical Center. After additional postdoctoral research training at the Center for Vaccine Development at the University of Maryland, Dr. Donnenberg joined the faculty in 1990.Dr. Donnenbergs research has focused on the molecular pathogenesis of infections due to Escherichia coli and on the biogenesis and function of bacterial surface appendages called Type IV Pili that are used by many pathogens to adhere to host cell surfaces. His work has been continuously funded by the National Institutes of Health for over twenty years and has resulted in the publication of over one hundred original manuscripts, reviews, and book chapters. He is a Fellow of the Infectious Diseases Society of America and the American Academy of Microbiology and a member of the American Society for Clinical Investigation. He is a recipient of the Oswald Avery Award from the Infectious Diseases Society of America.Dr. Donnenberg is an active Infectious Diseases clinician and directs the Medical Scientist (MD/PhD) Program at the University of Maryland. He is also active in medical education and was an inaugural member of the Pass and Susel Academy of Academic Excellence at the University of Maryland.