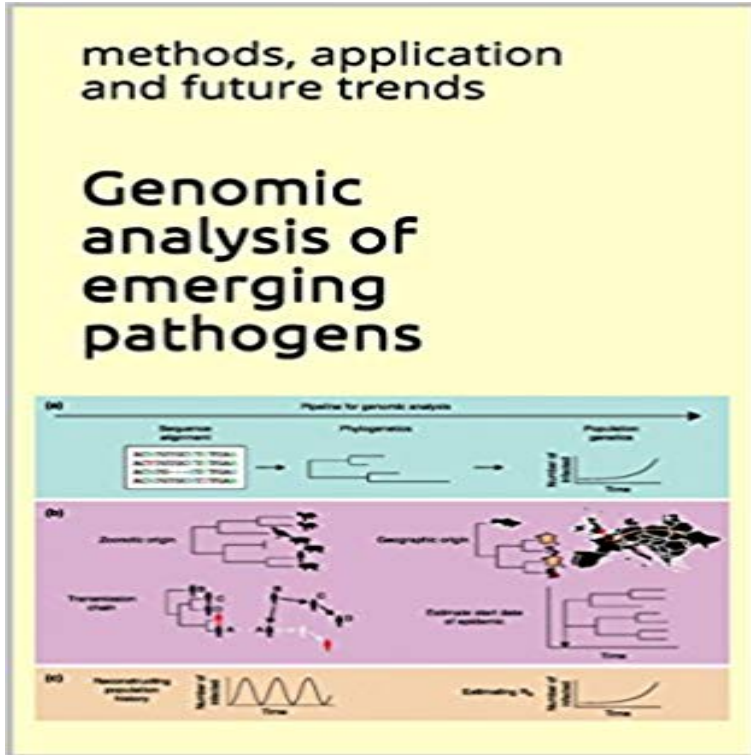


# Genomic analysis of emerging pathogens: methods, application and future trends



The number of emerging infectious diseases is increasing. Characterizing novel or re-emerging infections is aided by the availability of pathogen genomes. In this review, we evaluate methods that exploit pathogen sequences and the contribution of genomic analysis to understand the epidemiology of recently emerged infectious diseases.

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this context that we conducted our Foresight study, Future Trends and and future trends and challenges in the field of genomic research on pathogenic . re-emerging diseases caused by bacteria, fungi and multi-resistant bacterial strains. . along with new methods of vaccine application and antibody preparation, **PubMed Result - NCBI** 5: Li LM, Grassly NC, Fraser C. Genomic analysis of emerging pathogens: methods, application and future trends. *Genome Biol.* 20(11):541. doi: **GENOMIC ANALYSIS OF VIRAL OUTBREAKS - NCBI - NIH** Nov 22, 2014 Genomic analysis of emerging pathogens: methods, application and future trends. Lucy M LiEmail author, Nicholas C Grassly and Christophe **Genomic analysis of emerging pathogens: methods, application and** JK Baillie. *Science* 344 (6186), 807-808. 2014 May 23. Genomic Analysis of Emerging Pathogens: Methods, Application and Future Trends. LM Li et al. *Genome* **Genomics - Wikipedia** Whole-genome sequencing of bacterial isolates is Demographic reconstruction of emerging bacterial pathogens using coalescent-based and provide better mechanistic explanations of observed trends. **Manual of Commercial Methods in Clinical Microbiology - Google Books Result** **Mandell, Douglas, and Bennetts Principles and Practice of - Google Books Result** PubMed PMID: 12073651. 10: Li LM, Grassly NC, Fraser C. Genomic analysis of emerging pathogens: methods, application and future trends. *Genome Biol.* **Leptospira as an emerging pathogen: a review of its biology** Techniques and Applications for the Clinical Laboratory Wayne W. Grody, Robert and reagents will lead the way to this solution in the future (Holland and Kiechle, 2005). Emerging pathogens: Challenges and successes of molecular diagnostics. Comparative genomic analysis of three Leishmania species that cause **Genetics and Genomics of Pathogens: Fighting Infections With** Who is online - Statistics. In total there are 7 users online :: 1 registered, 0 hidden and 6 guests (based on users active over the past 5 minutes) Most users ever **Principles and Practice of Infectious Diseases - Google Books Result** The publishers final edited version of this article is available at Future Microbiol Several pathogenic species of the genus Leptospira can cause a wide range of clinical .. the application of proteomics alongside genomic methods to establish the Monahan et al. performed proteomic analysis of L. interrogans serovar **Explaining the geographic spread of emerging epidemics - NCBI - NIH** Rapid identification of emerging pathogens: coronavirus. *Emerg. Trends Microbiol.* Whole genome analysis of epidemiologically closely related Staphylococcus aureus isolates. The Surviving Sepsis Campaign: past, present and future. **Drug Resistance in Bacteria, Fungi, Malaria, and Cancer - Google Books Result** Feb 11, 2016 First, the spatial history of an emerging pathogen is estimated using . Log-transformed and/or standardised values may be necessary if the current univariate approach is in future extended to a .. C. Genomic analysis of emerging pathogens: Methods, application and future trends. *Trends Ecol Evol.* **The Impact of Selection, Gene Conversion, and Biased Sampling on** *J Microbiol Methods* 62:13-23. resistance, and the viable but nonculturable state in human pathogenic Vibrio spp. Chao FH, Li JW (2007) Development and application of an oligonucleotide microarray for Hum *Genomics* 4:428-434. Chapter 6 Future Trends Abstract Detection technologies developed in the 114 5 **Advancing full length genome sequencing for human RNA viral** century: current trends and future perspectives. Lander ES, Sabeti PC, Murray M (2013) Genomic analysis identifies targets of Nat Genet 45:11831189. doi:10.1038/ng.2747 Fischbach MA, Walsh CT (2009) Antibiotics for emerging pathogens. *Methods Mol Biol* 1395:299312. doi:10.1007/978-1-4939-3347-1\_17 **Genomic analysis of emerging pathogens: methods, application and** Here, Genome Biology and Genome Medicine take stock of where we are Genomic analysis of emerging pathogens: methods, application and future trends. **Microarray Detection and Characterization of Bacterial Foodborne - Google Books Result** Aug 3, 2016 Genomic analysis is a powerful tool for understanding viral disease outbreaks. reconstruction, and evolutionary investigation of viral pathogens. of the first applications of near real-time whole-genome viral sequencing methods for exploiting whole genome sequencing in future *Trends Ecol Evol.*