1. Record Nr. UNINA9910784401703321

Titolo	Infectious disease and host-pathogen evolution / / edited by Krishna R. Dronamraju [[electronic resource]]
Pubbl/distr/stampa	Cambridge : , : Cambridge University Press, , 2004
ISBN	1-107-14545-7 1-280-47772-5 9786610477722 0-511-19511-7 0-511-19577-X 0-511-19368-8 0-511-31415-9 0-511-54625-4 0-511-19442-0
Descrizione fisica	1 online resource (xiv, 370 pages) : digital, PDF file(s)
Disciplina	616.9041
Soggetti	Microorganisms - Evolution Host-parasite relationships Evolutionary genetics Human evolution
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Title from publisher's bibliographic system (viewed on 05 Oct 2015).
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Haldane's ideas in biology with special reference to disease and evolution / James F. Crow -- J.B.S. Haldane and the malaria hypothesis / D.J. Weatherall -- Evolutionary genetics of plasmodium falciparum, the agent of malignant malaria / Stephen M. Rich and Francisco J. Ayala -- Evolutionary biology of malarial parasites / Ananias A. Escalante and Altaf A. Lal -- G6PD deficiency and malarial resistance in humans: insights form revolutionary genetic analysies / Sarah A. Tishkoff and Brian C. Verrelli -- The enigma of plasmodium vivax malaria and erythrocyte duff negativity / Peter A. Zimmerman -- Influenza evolution / Robin M. Bush and Nancy J. Cox -- Free-living to freewheeling: the evolution of vibrio cholerae from innocence to infamy / Rita R. Colwell,

Shah M. Faruque, and G. Balakrish Nair -- Evolutionary dynamics of daphnia and their microparasites / Tom Little and Dieter Ebert -- Human susceptibility to visceral Leishmaniasis (leishmania donovani) and to Schistosomiasis (schistosoma mansoni) is constrolled by major genetic loci / A. Dessein, B. Bucheton, L. Argiro, N.M.A. Elwali, V. Rodrigues, C. Chevillard, S. Marquet, H. Dessein, S.H. El-Safi, and L. Ablel -- The evolution of pathogen virulence in response to animal and public health interventions / Andrew F. Read, Sylvain Gandon, Sean Nee, and Margaret J. Mackinnon -- Infection and the diversity of regulatory DNA / Lindsay G. Cowell, N. Avrion Mitchison, and Brigitte Muller -- Genetic epidemiology of infectious diseases: the first half-century / Newton E. Morton -- The impact of human genetic diversity on the transmission and severity of infectious diseases / Michel Tibayrenc -- Evolution and the etiology of diabetes mellitus / Kyle D. Cochran and Gregory M. Cochran -- The future of human evolution / Luca Cavalli-Sforza.

Sommario/riassunto

This book, originally published in 2004, is concerned with the links between human evolution and infectious disease. It has long been recognised that an important factor in human evolution has been the struggle against infectious disease and, more recently, it was revealed that complex genetic polymorphisms are the direct result of that struggle. As molecular biological techniques become more sophisticated, a number of breakthroughs in the area of host-pathogen evolution led to an increased interest in this field. From the historical beginnings of J. B. S. Haldane's original hypothesis to more recent research, this book strives to evaluate infectious diseases from an evolutionary perspective. It provides a survey of information regarding host-pathogen evolution related to major infectious diseases and parasitic infections, including malaria, influenza and leishmaniasis. Written by leading authorities in the field, and edited by a former pupil of Haldane, Infectious Disease and Host-Pathogen Evolution will be valuable for those working in related areas of microbiology, parasitology, immunology and infectious disease medicine, as well as genetics, evolutionary biology and epidemiology.