INFECTION, GENETICS AND EVOLUTION
Journal of Molecular Epidemiology and Evolutionary Genetics of Infectious Diseases (MEEGID)

AUTHOR INFORMATION PACK

TABLE OF CONTENTS

- Description p.1
- Audience p.2
- Impact Factor p.2
- Abstracting and Indexing p.2
- Editorial Board p.2
- Guide for Authors p.4

DESCRIPTION

Infectious diseases constitute one of the main challenges to medical science in the coming century. The impressive development of molecular megatechnologies and of bioinformatics have greatly increased our knowledge of the evolution, transmission and pathogenicity of infectious diseases. Research has shown that host susceptibility to many infectious diseases has a genetic basis. Furthermore, much is now known on the molecular epidemiology, evolution and virulence of pathogenic agents, as well as their resistance to drugs, vaccines, and antibiotics. Equally, research on the genetics of disease vectors has greatly improved our understanding of their systematics, has increased our capacity to identify target populations for control or intervention, and has provided detailed information on the mechanisms of insecticide resistance.

However, the genetics and evolutionary biology of hosts, pathogens and vectors have tended to develop as three separate fields of research. This artificial compartmentalisation is of concern due to our growing appreciation of the strong coevolutionary interactions among hosts, pathogens and vectors.

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Martine Peeters, Retrovirus Lab., Institut de Recherche pour le Développement (IRD), Montpellier, France
Marcos Perez-Losada, Computational Biology Institute, Innovation Hall, The George Washington University, 45085 University Drive, Suite 305, Ashburn, 20147, USA
Tung Phan, Dept. of Pathology & Lab. Medicine, School of Medicine, Indiana University, 702 Barnhill Drive, Room 0969, Indianapolis, IN 46202-5120, USA
Shoukat Qari*, Office of Applied Research, Center for Preparedness and Response, Centers for Disease Control and Prevention (CDC), 1600 Clifton Road, MS D-44, Atlanta, GA 30333, Georgia, USA
*Shoukat Qari is serving in his personal capacity. The views expressed are his own and do not necessarily represent the views of the Centers for Disease Control and Prevention or the United States Government.
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Thierry Wirth, ISYE, UMR-CNRS 7205, Museum National d'Histoire Naturelle, 16 rue Buffon, , 75231, Paris cedex 05, France
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Jianpeng Xu, Joint Genome Institute, Lawrence Berkeley National Laboratory, 2800 Mitchell Drive, Walnut Creek, CA 94598, USA
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INTRODUCTION
Infectious diseases constitute one of the main challenges to medical science in the coming century. The impressive development of molecular megatechnologies and of bioinformatics have greatly increased our knowledge of the evolution, transmission and pathogenicity of infectious diseases. Research has shown that host susceptibility to many infectious diseases has a genetic basis. Furthermore, much is now known on the molecular epidemiology, evolution and virulence of pathogenic agents, as well as their resistance to drugs, vaccines, and antibiotics. Equally, research on the genetics of disease vectors has greatly improved our understanding of their systematics, has increased our capacity to identify target populations for control or intervention, and has provided detailed information on the mechanisms of insecticide resistance.

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