

Journal of Medical Microbiology: Subject Categories

Antimicrobial Resistance (new section)

A full description is coming soon.

Clinical Microbiology

The section covers the broad field from basic science to clinical presentation and treatment. The Clinical Microbiology section of *Journal of Medical Microbiology* welcomes manuscripts which present novel and original findings that impact on our understanding of infection in medical practice.

We welcome submission on topics ranging from antimicrobial resistance; and better diagnostics to emerging infections like Zika and Ebola. We also welcome manuscripts that cover topics on hospital acquired infections, as well as, infection prevention and control. Reviews are especially welcome and should provide clear and insightful coverage of relevant and topical subjects.

Disease, Diagnosis and Diagnostics (new section)

A full description is coming soon.

Microbial Epidemiology

This section will consider the epidemiology of (potentially) pathogenic microorganisms and how it can increase our understanding of the diseases they cause in humans and animals. The application of microbial epidemiology is to describe better the interactions of the microbial agent (bacterium, virus, parasite, fungus) with the host and the environment. Geographical distribution is also considered, as well as, transmission and the application of epidemiological concepts including vector control.

Submissions are welcomed on novel aspects of the distribution and determinants of pathogenic microbes in defined microbial and host populations. Studies ranging from localised (e.g., hospital), to those affecting communities and larger geographic regions (e.g., national and international) will be considered. New insights from the following areas are welcome: application of phenotypic and genotypic techniques; biomarkers, antimicrobial sensitivity and resistance; population-based serological surveys; genotypic analyses including whole genome sequencing; proteomics; bioinformatics and; statistical analyses on surveillance of infectious disease. Investigation and control of infectious diseases are also welcome.

Microbial Ecology and Health

This section will cover studies that shed new light on the structure of microbial ecosystems and communities at all body sites. Research findings must demonstrate a significant impact in the field of medical microbiology. It is encouraged to demonstrate the importance of the normal microbiome in maintaining a state of health and prevention of disease, as well as how perturbation of a normal healthy microbiome to a dysbiotic microbiome can lead to disease.

Papers are invited which report novel findings in the area of microbial ecology, with an emphasis on how microorganisms interact with their environment, their host and each other, both within and outside biofilms, and the impact on general health and treatment of disease.

Pathogenicity and Virulence

Our knowledge of the virulence strategies employed by pathogens to cause infections is broad, but much of the detail still needs to be uncovered. This includes the molecular mechanisms of virulence, the regulatory controls to which they are subject, how they are produced in a co-ordinated manner, as well as how they interface with the immune response of the host to determine the symptoms of an infection. Understanding this in more depth will enable the design and testing of novel antimicrobial therapies, prevention strategies and also diagnostic tests to advance medical microbiology practice.

This section will consider manuscripts that provide novel insights into pathogenicity, for example the discovery of a virulence factor or dissection of a virulence factor functional pathway. Reviews submitted should cover

topical aspects of pathogenicity, and be thought-provoking, presenting avenues for future investigation or current controversial topics.

Prevention and Therapy

This section covers wide range of topics pertaining to preventive measures and novel therapeutic approaches in combating microbial infections. We invite submission of manuscripts that accentuates and provides experimental and scientific support for new discoveries, current development and innovative approaches in combating microbial infections.

Manuscripts that explore microbes at molecular and physiological levels, timely detection using novel technology, antimicrobial resistance, drug discovery, basic science research to identify vaccine and drug targets are welcome. Manuscripts should be concisely written, articulate and coherently focused, conclusions should flow logically and should be pertinent to the data presented and all methodological flaws and limitations should be addressed appropriately.

One Health

This section recognises that the health of humans, animals and ecosystems are interconnected. It involves applying a coordinated, collaborative, and cross-sectoral approach to address potential or existing risks that originate at the animal-human-ecosystems interface. It is clear that a concerted effort is required to control infectious diseases in animals, humans and the environment, and the most pragmatic approach is to bring together scientist, veterinarians and medics to work collaboratively to tackle these important issues.

Manuscripts that present novel insight into all aspects of veterinary, medical and comparative microbiology will be considered. From a medical microbiological perspective this includes understanding the epidemiology, surveillance and control of zoonotic pathogens (those that can be transmitted from animals to humans) such as *Salmonella*, *Campylobacter* and Rabies). Aspects of antimicrobial resistance also fall within the scope of One-Health, as use in animals, humans and the environment are frequently interconnected. Submissions that cover this inter-connectivity are also welcome.