

Special Issue

Molecular Diagnostics and Epidemiology of Viral Infections

Message from the Guest Editor

The use of molecular biology methods is crucial for timely and accurate diagnosis in clinical virology, ensuring proper treatment, limiting virus spread, and safeguarding blood products and organ transplants. Polymerase chain reaction (PCR) is the preferred tool for detecting viral nucleic acids due to its ability to detect multiple targets and measure viral load from small samples. Sequencing viral genomes provides comprehensive pathogen information, including drug-resistance mutations for treatment and vaccine development. While Sanger sequencing is widely used, it has limitations in detecting genetic forms present in at least 20% of samples. Next-generation sequencing (NGS) can detect minority variants with lower viral loads but is costly and complex. This Special Issue aims to discuss and compare molecular techniques for viral pathogen detection, develop sensitive tests, and explore Sanger vs. NGS strengths and weaknesses in detecting drug resistance and genotyping viruses for epidemiology.

Guest Editor

Dr. Ivana Grgic

Department of Immunological and Molecular Diagnostics, University Hospital for Infectious Diseases "Dr. Fran Mihaljevic", 10000 Zagreb, Croatia

Deadline for manuscript submissions

closed (31 May 2025)



Tropical Medicine and Infectious Disease

an Open Access Journal
by MDPI

Impact Factor 2.6
CiteScore 4.7
Indexed in PubMed



mdpi.com/si/200368

*Tropical Medicine and
Infectious Disease*
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
tropicalmed@mdpi.com

[mdpi.com/journal/
tropicalmed](https://mdpi.com/journal/tropicalmed)





Tropical Medicine and Infectious Disease

an Open Access Journal
by MDPI

Impact Factor 2.6
CiteScore 4.7
Indexed in PubMed



[mdpi.com/journal/
tropicalmed](https://mdpi.com/journal/tropicalmed)



About the Journal

Message from the Editor-in-Chief

Editor-in-Chief

Prof. Dr. John Frean

Pathologist, Parasitology Reference Lab, Centre for Emerging Zoonotic and Parasitic Diseases, National Institute for Communicable Diseases, University of the Witwatersrand, Johannesburg 2192, South Africa

Author Benefits

High Visibility:

indexed within Scopus, SCIE (Web of Science), PubMed, PMC, Embase, Informit, and other databases.

Journal Rank:

JCR - Q1 (Tropical Medicine) / CiteScore - Q2 (Public Health, Environmental and Occupational Health)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 20.6 days after submission; acceptance to publication is undertaken in 3.1 days (median values for papers published in this journal in the first half of 2025).