

Special Issue

Pathogen-Integrated Non-Coding Sequences: Regulatory Roles in Infection, Immune Response, and Disease

Message from the Guest Editor

Pathogens can integrate their genetic material into the host genome, giving rise to non-coding sequences that regulate host immune responses and influence disease progression. These integrated non-coding sequences, originating from viruses, transposons, or other horizontally transferred elements, can modulate both pathogen and host gene expression, affecting immune evasion, chronic infection, and cancer development. This Special Issue explores the role of pathogen-integrated non-coding sequences in shaping immune responses, with a focus on how these elements influence immune cell profiles (e.g., lymphocyte subpopulations) and contribute to the diagnosis or differentiation of diseases such as tuberculosis and HPV-related cancers (e.g., cervical cancer). We welcome studies that investigate how these sequences impact host-pathogen interactions, immune system modulation, and their potential as diagnostic biomarkers or therapeutic targets in infectious diseases and pathogen-associated cancers.

Guest Editor

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About the Journal

Message from the Editor-in-Chief

The worldwide impact of infectious disease is incalculable. The consequences for human health in terms of morbidity and mortality are obvious and vast but, when infections of animals and plants are also taken into account, it is hard to imagine any other disease that has such a significant impact on our lives—on healthcare systems, on agriculture and on world economics.

Pathogens is proud to continue to serve the international community by publishing high quality studies that further our understanding of infection and have meaningful consequences for disease intervention.

Editor-in-Chief

Prof. Dr. Hinh Ly

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