Special Issue

Pathogens in Dentistry: Diversity, Virulence, Resistance, and Control

Message from the Guest Editor

Virulence factors in oral pathogens, such as biofilm formation, enzyme production, and immune evasion mechanisms, contribute to their persistence and destructive potential. Biofilms, in particular, protect microbes from environmental stresses and antimicrobial agents, complicating infection control. The rise in antimicrobial resistance (AMR) among dental pathogens further exacerbates treatment difficulties, necessitating innovative strategies to overcome resistant strains. Current control measures involve the mechanical removal of biofilms, the use of antiseptics, and systemic or local antibiotics. However, increasing resistance and the complex ecology of the oral microbiome demand more targeted and sustainable approaches. Advances in molecular diagnostics, microbial genomics, and host immune modulation offer promising avenues for personalized dental care and effective pathogen control.

Guest Editor

Dr. Gláuber Campos Vale

Postgraduate Program in Dentistry, Federal University of Piauí, Teresina 64049-550, Brazil

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Pathogens
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
pathogens@mdpi.com

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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
Department of Veterinary & Biomedical Sciences, University of Minnesota, Twin Cities, MN, USA

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