



Advanced Research on the *Streptococcus mutans*

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Message from the Guest Editor

Dear Colleagues,

Streptococcus mutans is considered the principal etiologic agent of dental caries with important virulence factors, such as strong adhesion, intracellular and extracellular polysaccharides synthesis, biofilm formation, acidogenicity, and aciduricity. In addition, *S. mutans* resides in biofilms, which is a diverse, multi-species, and dynamic environment that is constantly exposed to severe limitations in nutrition, fluctuations in temperature and pH, and challenges in osmotic and oxidative tensions. Therefore, to survive adverse environmental conditions, bacteria evolve through a wide range of rapid and adaptive responses, including carbohydrate utilization, temperature, and oxidative adaptability, etc. In addition to the cariogenic functions, *S. mutans* can enter the bloodstream and cause systemic infections occasionally, such as infective endocarditis. With this special issue, we set out to offer a better understanding of *S. mutans* and its pathogenicity and adaptability, as well as the potential agents against it, and to showcase recent advances in these areas (including, but are not limited to).





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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.

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