

Special Issue on  
**Helicobacter pylori: Infection and New Perspective for  
the Treatment**

# CALL FOR PAPERS

*Helicobacter pylori* is one of the most communal causes of bacterial infection in humans, but it is linked with disease in less than 20% of infected people. The majority of *H. pylori*-infected persons remain colonized for life and it is possible because *H. pylori* is a highly flexible organism that is optimally adapted to its host. Subjects with chronic infection and genetic risk factors may be at particular hazard to development gastric disease during their life. In these individuals, the risk for developing cancer relates to the physiological and histological changes *H. pylori* induces in the stomach, although much remains to be understood about the pathogenesis of this relationship.

*H. pylori* chronic infection and its resistance to the drugs commonly used in antimicrobial therapy have been attributed not only to genetic variability, but also to ability of *H. pylori* to form biofilm and entry in VBNC state (dormancy) as a strategy to overcome environmental stress.

The anti-*H. pylori* therapeutic regimens, available at today, have several inherent problems, including both the presence of high rate of multidrug resistance which is also correlated to specific geographical areas and the significant presence of tolerant strains due to the capability to form microbial biofilm with the risk of reinfection and the high cost of antibiotic therapy.

On the basis of these evidences, novel alternatives therapies are needed. Probiotics, human derived-peptides, polysaccharides, and natural substance are successfully documented in literature. Some of these components are useful in preventing the adverse effects of antibiotics, in the modulating of the immune response, in gastroprotection, and in the general promotion of health. Moreover, the alternative therapies have been involved to maintain low bacterial levels and can be used as adjuvants of allopathic anti-*H. pylori* eradication therapy.

To date, research needs to be conducted to investigate the lack of correlation between *in vitro* susceptibility and *in vivo* efficacy of these approaches such as natural products, probiotics, and nutraceuticals. In fact, the important positive effects are widely revealed in *in vitro* detections that only in few cases are supported by *in vivo* studies. New research needs to be performed to demonstrate *in vivo* the efficacy detected *in vitro*.

This special issue has the goals to focus on innovative treatments identifying new bioactive substances, probiotics, and nutraceuticals for the *H. pylori* eradication.

The guest editors call not only for original research manuscripts as well as review manuscripts but also for rare case studies in medical microbiology in the form of case report and literature review.

Potential topics include but are not limited to the following:

- ▶ Dormancy in *H. pylori*
- ▶ Antibiotic resistance breakers in *H. pylori* treatment
- ▶ *H. pylori* biofilm and persistence
- ▶ New synergic natural compounds/antibiotic association in *H. pylori* treatment

Authors can submit their manuscripts through the Manuscript Tracking System at <https://mts.hindawi.com/submit/journals/cjidmm/hepy/>.

Papers are published upon acceptance, regardless of the Special Issue publication date.

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