Dear Colleagues,

*Helicobacter pylori* is still the central focus for many researchers since it was discovered in 1982. This ubiquitous bacterium is etiologically associated to a very large spectrum of diseases, ranging from gastritis to gastric cancer. *H. pylori* is also considered the most diverse pathogenic bacteria, with a well-structural genetic diversity, that, in turn, can be used as a tool to dig into past human history. Although many resources have been used for the understanding of the biology of this bacterium and its relationship with the human host, the colonization mechanisms are still unclear, as is the interaction of the host-bacterial virulence-environment, determination of antibiotic resistance patterns, and the molecular mechanisms for cellular signaling pathways. This Special Issue will center on both reviews and original papers that focus on defining: (1) molecular mechanisms encountered in the pathogenesis of *H. pylori*; (2) molecular epidemiology of virulence factors for the inference of disease outcomes and new targets for eradication treatment; (3) molecular evolution and population structure of bacteria.

Prof. Yoshio Yamaoka
Pr