Special Issue

Elucidating *Helicobacter pylori* and *Campylobacter jejuni* Attachment Mechanisms

Message from the Guest Editors

Helicobacter pylori and Campylobacter jejuni are two Gram-negative bacteria with similar morphology but occupying very distinct environmental niches.

In recent years, a growing number of adhesins mediating attachment of H. pylori to the gastric mucosa or mucus have been characterized structurally and in terms of their natural ligands (e.g., BabA, SabA, LabA, and HopQ). While the identification of C. jejuni adhesins so far has identified adhesins enabling binding to fibronectin (e.g., FlpA, CadF), most known ligands for H. pylori are carbohydrates, e.g., Lewis B for BabA and sialyl-Lewis X for SabA, with the exception of HopQ, whose ligands are members of the carcinoembryonic antigen-related cell adhesion molecule (CEACAM) family.

However, proteomic and genomic studies have also identified the existence of fibronectin binding adhesins in H. pylori, which remain poorly characterized, and the identity of the ligands for several putative adhesins in C. jejuni is still unknown.

The aim of this Special Edition is to summarize the status quo of our knowledge regarding adhesins and corresponding ligands by highlighting differences and perhaps similarities between the two bacteria.

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