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Process for detection of *Helicobacter pylori* using aliphatic amides

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Helicobacter pylori is a widespread Gram-negative bacterium that colonizes the stomach of humans. It is the etiologic agent of several gastric disorders, such as gastritis, gastric ulcers, and it has been shown to be a risk factor for the development of gastric cancer. The high capacity of *H. pylori* to resist to the strong acidic conditions of the stomach is related to the production of ammonia. Urease is the enzyme that as been related to the acid resistance of this bacterium. However, more recently, other ammonia-producing enzymes have also been described. Among them are the aliphatic amidases (Bury-Moné *et al.*, 2003), which are enzymes that are able to hydrolyze short-chain amides into the corresponding short-chain fatty acids and ammonia.In this work, a process for detection of *H. pylori* is proposed based on the administration of aliphatic amides to the *H. pylori* medium followed by the analysis of the headspace composition by solid-phase microextraction (HS-SPME) and analysis by gas chromatography-mass spectrometry (GC-MS).

1. Bury-Moné, S. *et al.* (2003) *Infect. Immun.* **71**:5613-5613.