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# Foreword

Congratulations to Harry Mobley and Chris Clayton for putting together this new and authoritative manual for the scientist and clinician studying *Helicobacter pylori*. The editors are well-known to *H. pylori* devotees and have individually authored several of the milestone papers on *H. pylori*. Mobley, drawing on vast experience in the study of bacterial urease, was the first to systematically characterize the enzyme, confirming (as many had believed) that it was a very important component of this newly described acid-tolerant gastric organism. Clayton, with similar foresight, was the first to clone genes from *H. pylori* and express them in *E. coli*. He subsequently showed these to be the urease structural genes by DNA sequencing, and this information was used to detect the organism by PCR. The initial observations of these two investigators were immediately put into practice by clinical investigators, forming the theoretical basis for urease tests, urea breath tests, and the PCR-based *H. pylori* diagnostics currently in development.

For the basic scientist studying this fascinating new bacterial genus, *Helicobacter pylori* *Protocols* will be an essential resource in every laboratory. *H. pylori* is far more difficult to work with than *E. coli*, so the inclusion of chapters on media and susceptibility testing is an appropriate start. Methods for studying the metabolism of *H. pylori* are described before comprehensive chapters on molecular methods. The molecular methods include all the published protocols necessary for the study of *H. pylori* epidemiology and taxonomy. For example, restriction analysis and RFLP allow the identification of individual strains, and ribosomal RNA studies define the relationship between *H. pylori* and related new helicobacters.

For the scientist considering *H. pylori* vaccines, the chapters include molecular methods for studying cytotoxin genes, surface antigens involved with attachment to the mucosa, and methods for studying *H. pylori* in various animal models.

For the clinician, this book is a valuable reference because it clearly explains the methods used in so many of the papers now appearing on *H. pylori* epidemiology, transmission, and pathogenesis. The chapters are concise, splendidly illustrated, and well-referenced, making *Helicobacter pylori* *Protocols* a

pleasure to read. The information within is essential knowledge today as we attempt to treat this ubiquitous pathogen, in both developing and Western countries. *Helicobacter pylori* *Protocols* will stimulate more scientists to venture into the world of *H. pylori* and will likely speed up our journey toward the "holy grail," an inexpensive oral vaccine.

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