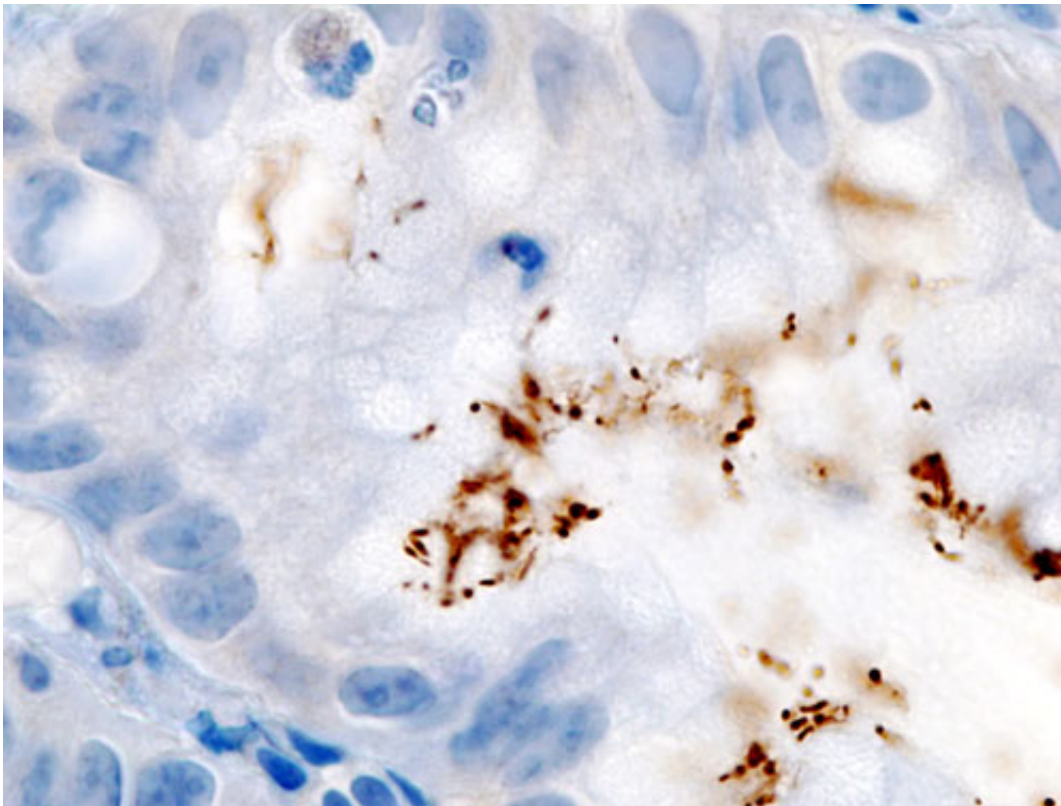


New weapons to battle bacterium behind ulcers

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Histopathology of *Helicobacter pylori* infection in a gastric foveolar pit demonstrated in endoscopic gastric biopsy. Credit: Wikipedia.

Helicobacter pylori is a bacteria that lives in the gut of more than 50 per cent of the world's population, and is the most common bacterial infection worldwide. It is responsible for most peptic ulcers and is a significant risk factor for stomach cancer.

Professors Peter Tyler and Gary Evans, and Dr Keith Clinch from Victoria's Ferrier Research Institute, have worked with Professor Vern Schramm from Albert Einstein College of Medicine in New York to develop 10 antibiotic [candidates](#) for treating the [bacteria](#).

"Developing a new antibiotic treatment for this bacteria has become important because of the development of resistance to drugs, the use of which tends to wipe out much of the gut's healthy bacteria as well," says Professor Tyler.

"Our compounds target a pathway specific to this bacterium, by blocking the enzyme methylthioadenosine nucleosidase and interfering with production of an essential bacterial membrane component. This means we can selectively halt the growth of this bacterium, while not affecting other beneficial gut microbes."

All ten of the antibiotic candidates identified by the research team have been proven to prevent the bacteria's growth at concentrations 16 to 2,000-fold lower than [antibiotics](#) commonly used to treat *Helicobacter pylori* infections.

The research team has spent the past three years in the lab synthesising and testing the drug candidates, with their findings recently published by the *Journal of the American Chemical Society*.

"This is a great achievement for Ferrier scientists, who have been heavily involved in the development of the compounds", says Director of the Ferrier Research Institute Professor Richard Furneaux.

Provided by Victoria University

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