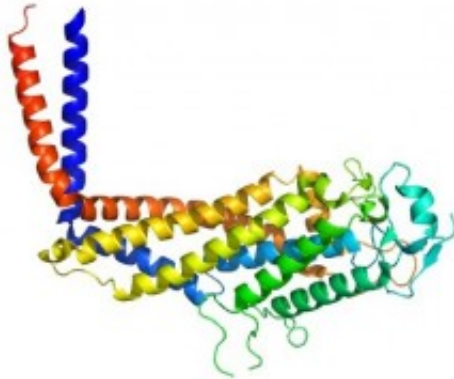


Scientists solve a sticky problem

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The Monash University researchers pinpointed the part of SabA that is important for its stickiness, and they are now working to develop specific drugs that stop the protein from working properly.

(Medical Xpress)—Scientists have uncovered how an ulcer causing stomach bacteria, that has been linked to gastric cancer, sticks to and infects the lining of the stomach and gut.

Australian scientists have long had an interest in how the bacterium, *Helicobacter pylori*, causes ulcers and more rarely [gastric cancer](#). Now, researchers led by Dr Terry Kwok and Professor James Whisstock, from Monash University's Department of Biochemistry and Molecular Biology, have determined the 3-dimensional structure of a protein called SabA. SabA effectively acts as glue, sticking the bacteria to the lining the stomach, which can cause gastric disease.

Professor Whisstock said the findings could pave the way for potential new treatments for various gastric diseases.

"SabA is a type of protein known as an adhesin. As the name suggests, adhesins stick the bacteria to the cells lining the stomach. If we can stop SabA from working properly, then we may have a new approach for treating a range of different [gastric](#) diseases," Professor Whisstock said.

The Monash University researchers pinpointed the part of SabA that is important for its stickiness, and they are now working to develop specific drugs that stop the protein from working properly.

Dr Kwok said infection with bacteria [helicobacter pylori](#) is the cause of most [stomach](#) and small intestine ulcers.

"Chronic Helicobacter pylori infection is an important problem, with re-occurring infections particularly difficult to treat, so there is great interest in developing new and specific drugs in this area," Dr Kwok said.

The research was conducted at the Australian Synchrotron and recently published in the *Journal of Biological Chemistry*.

More information: [www.jbc.org/content/early/2013 ...
M113.513135.abstract](http://www.jbc.org/content/early/2013...M113.513135.abstract)

Provided by Monash University

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