

中文題目：探討 MIF 蛋白參與幽門螺旋桿菌所促進胃癌細胞之惡化

英文題目：HOXA9 induces cell migration through upregulation of cytokine receptors in human gastric cancer cells

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Background: Epidemiological studies report that gastric cancer is one of the most common cancers worldwide, and is also the second leading cause of cancer-related mortality. The poor prognosis of gastric cancer may be partly attributed to the complicated molecular networks operating the aggressiveness of gastric cancer. *Helicobacter pylori* (*H. pylori*) infection will increase the incidence of gastric cancer (GC). Here we will investigate the expression of MIF in *H. pylori*-infected human gastric cells, and the role of MIF in cell motility and sphere formation in human gastric cancer cells.

Method and Material: We analyze the cytokines in the human gastric cancer cells that are infected by *H. pylori*. The motility of gastric cancer cells was measured using modified Boyden chambers with filter inserts for 24-well dishes containing 8- μ m pores. The sphere formation of gastric cancer cells also was observed. Recombinant MIF protein was used to measure the effect on motility and sphere formation in gastric cancer cells.

Result: The results from human cytokine arrays showed that *H. pylori*-infected human gastric cancer cells notably express MIF protein. Treatment of recombinant MIF confirmed the role of MIF in upregulating cell motility and sphere formation.

Conclusion: These results suggest that MIF induces motility and sphere formation in human gastric cancer cells.