中文題目：人類胃癌及肝癌細胞在血清中 SAA 的表現

英文題目：The serum amyloid A (SAA) expression in human gastric cancer and hepatocellular carcinoma

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Background: Gastric cancer and Liver cancer are some of the most prevalent cancers worldwide. The prognosis of these cancers, especially in patients with advanced-stage, is generally poor, thus causing high cancer-related mortality around the world. Serum Amyloid A (SAA) is secreted during the acute phase of inflammation. In the tumor microenvironment, SAA possesses various abilities such as promoting the progression of cancer by stimulating proliferation, migration, invasion in the tumor cells. SAA is secreted during the acute phase of inflammation and its expression is regulated in liver cells by the proinflammatory cytokines IL-1, IL-6, and TNF-α. In healthy donors, the expression levels of SAA are low. Therefore, we want to investigate the link between acute phase biology and cancer with a focus on SAA and its involvement in the regulation of cancer immunobiology.

Method: Gastric cancer cells and hepatocellular carcinoma cells are treated with interleukin-1 beta, interleukin-6, and TNF alpha in the experiments. SAA expression in treated cells was detected by ELISA assay, western blot, and real-time PCR.

Results: In the present study, human hepatocellular carcinoma hepG2 cells stimulated with IL-1, IL-6, and TNF-α showed a higher expression of SAA. Similarly, IL-1, IL-6, and TNF-α treatments in human AGS and N87 gastric cancer cells also increased the expression of SAA, especially in cell lysates.

Conclusion: These findings suggest that SAA might play a critical role in gastric and liver cancer progression through stimulation of proinflammatory cytokines.