

# Pharmaceutical sciences research paper says vitamin D inhibits cancer development

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Doctoral research student Shuang Zhou, and Erxi Wu, assistant professor of pharmaceutical sciences, have co-written a paper, "1, 25(OH)2D3 Inhibits Hepatocellular Carcinoma Development Through Reducing Secretion of Inflammatory Cytokines from Immunocytes" which was published in *Current Medicinal Chemistry*.

Low vitamin D levels in blood are associated with various types of diseases such as osteomalacia and cancer. According to the authors, epidemiological and clinical studies have indicated that low vitamin D activity is not only associated with an increased cancer risk and a more aggressive [tumor growth](#), but also connected with an aggravated [liver damage](#) caused by [chronic inflammation](#). Meanwhile, increasing evidence has demonstrated 1,25-(OH)2D3, the most biologically active metabolite of vitamin D, can inhibit inflammatory response in some chronic inflammatory associated cancer. However, the interaction between 1,25-(OH)2D3 and inflammation during hepatocellular carcinoma initiation and progression is not yet clear.

Researchers led by Wu and Qingyong Ma at Xi'an Jiaotong University, China, report an anti-tumorigenesis effect of 1,25-(OH)2D3 via decreasing secretion of [inflammatory cytokines](#) in hepatocellular carcinoma.

Wu said, "The effects of vitamin D supplementation on health are uncertain previously, now more and more data show that vitamin D plays very important roles in human health, especially for people living in

areas with low sunshine, such as North Dakota. In fact, the toxicity for excess of vitamin D is rare."

Provided by North Dakota State University

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