

Studies on Blackcurrants and Cancer

Title: Immuno-stimulatory effects of polysaccharide-rich substance with antitumor activity isolated from blackcurrant (*Ribes nigrum* L.)

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Test: The purpose of this study was to investigate the specific polysaccharides found in blackcurrant fruits and juices. These polysaccharides were then tested orally on tumors in carcinoma-bearing mice.

Results: The fruit juice of blackcurrant was found to contain a polysaccharide-rich substance, which was designated cassis polysaccharide (CAPS) with macrophage-stimulating activity. Its IL-1 β -inducing activity was remarkably high when compared to other fruit juice preparations. Oral administration of blackcurrant juice and CAPS to Ehrlich carcinoma-bearing mice retarded the growth of the solid tumor by 45% and 51% respectively.

Conclusion: CPS-i.m. appeared to play an important role in macrophage activation. CAPS showed a certain cytotoxicity directly against tumor cells.