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Researchers in Singapore use broccoli for beating bowel cancer

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The mechanism of action of the engineered bacteria is to attach to a protein called heparan sulphate proteoglycan on colorectal cancer cells. The bacteria then secrete an enzyme that transforms a small molecule from broccoli (glucosinolates) into a potent anticancer agent (sulphoraphane). The bacteria do not bind to healthy cells, nor are the healthy cells affected by the toxin.

During their experiment, the researchers observed that the probiotics-broccoli extract reduced tumor volumes by 75 percent in mice with colorectal cancer. The researchers envision that the probiotics cocktail could be used as a dietary supplement for preventive care, or to reduce tumor recurrence after surgery.