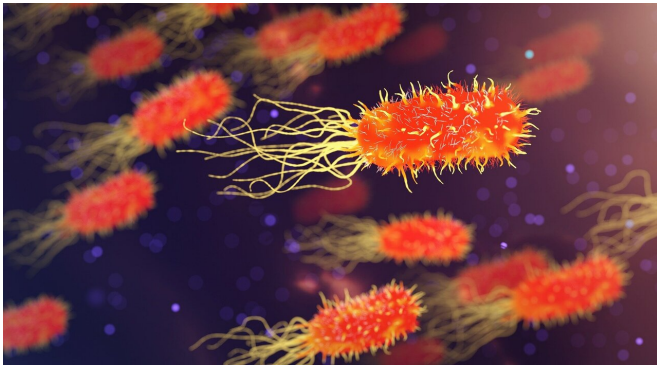


Probiotic bacteria shown to suppress growth of tumours in colorectal cancer

19 August 2020, by Toby Leigh



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New research has revealed that probiotic bacteria could control the development and progression of colorectal cancer (CRC).

The study, published recently in the journal *Microorganisms*, was led by Dr. Andrew Foey from the University, in collaboration with Dr. Vlasta Demeckova of Pavol Jozef Safarik University in Kosice, Slovak Republic.

Dr. Foey and the team tested a mixture of lactic acid bacteria (LAB) strains for its ability to affect the activity of immune [cells](#) (macrophages), in the hope of encouraging anti-tumor responses to CRC in the gut.

Results from the study showed the [probiotic](#) mix partially suppressed the development and growth of tumors in a model of CRC. The researchers concluded this may be as a result of the way the LAB mixture changed macrophage immune cell behavior.

According to charity Bowel Cancer UK, CRC is the fourth most common cancer in the country and the second biggest cancer killer, with more than 42,000 people diagnosed with the disease every

year in the UK. The charity says 1 in 15 men and 1 in 18 women will be diagnosed with the cancer during their lifetime.

Dr. Foey, associate professor in immunology at the University of Plymouth, said, "This study is just a small piece of a very large picture focused on understanding CRC and the potential development of therapeutics to control this disease. This investigation positively impacts on [cancer research](#) by highlighting the potential clinical translatability of probiotic mixtures to beneficially manipulate the immune system against CRC.

"This highlights the need for future research focused on probiotics in targeting macrophage cell responses in the treatment of colorectal [cancer](#) of the gut. It also indicates the potential use of probiotics in treatment of cancers associated with similar tissues, such as oral squamous cell carcinoma in the mouth."

More information: Petra Hradicka et al. A Novel Lactic Acid Bacteria Mixture: Macrophage-Targeted Prophylactic Intervention in Colorectal Cancer Management, *Microorganisms* (2020). [DOI: 10.3390/microorganisms8030387](#)

Provided by University of Plymouth

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