

Gut bacteria, host immunity and colorectal cancer: from pathogenesis to therapy

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Abstract

The emergence of 16S rRNA and metagenomic sequencing has gradually revealed the close relationship between dysbiosis and colorectal cancer (CRC). Recent studies have confirmed that intestinal dysbiosis plays various roles in the occurrence, development, and therapeutic response of CRC. Perturbation of host immunity is one of the key mechanisms. Intestinal flora, or specific bacterium and its metabolites can modulate the progression of CRC through Toll-like receptors signaling, or via the recruitment, polarization and activation of innate and adaptive immune cells to reshape the pro-/anti-tumor microenvironment. On this basis, administration of gut bacteria to enhance immune homeostasis represents new cues for the treatment of CRC. In this review, we will cover the recent studies on the role of gut bacteria in the progression and treatment of CRC through immune response orchestration, which potentially offers insights for subsequent transformative research.

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gut bacteria in CRC.doc available at <https://authorea.com/users/724416/articles/708366-gut-bacteria-host-immunity-and-colorectal-cancer-from-pathogenesis-to-therapy>