

Targeted Therapy in Colorectal Cancer

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Colorectal cancer is the third most common cancer worldwide and its incidence has been increasing in Iran in the past decade. Depending on the stage of colon cancer, various treatments including surgery, chemotherapy, immunotherapy or targeted therapy might be considered in the clinic. Despite many advances in these fields, patients still suffer from poor prognosis and further studies are required on early detection and targeted therapy of this cancer. In the past few years my lab has focused on different approaches to improve the efficacy of colorectal cancer treatment. While use of natural products like ferutinin was beneficial, further research indicated that safer and more efficient treatments can be achieved by targeted therapy. Some examples include downregulation of certain long noncoding RNAs and also specific approaches like "bacterial directed enzyme prodrug therapy" for which both in vitro and preclinical results in mouse models with colorectal cancer will be discussed. However, despite all these promising results, I think a combinatorial approach targeting multiple mechanisms would be more appropriate in colorectal cancer therapy in the clinic.