

Abstract

Colorectal carcinoma is one of the most frequent cancers and it is also one of the most common causes of cancer related death. It is often diagnosed at a late stage which is associated with a worse prognosis. Therefore, there is an effort to identify new biomarkers that allow earlier diagnosis. These biomarkers could predict prognosis of disease and patient's response to treatment. Short noncoding RNAs – microRNA - appears to be promising candidates, these molecules are involved in many cellular processes through RNA interference. The aim of this thesis is to summarize knowledge about application of miR-122 and miR-142 as diagnostic and prognostic biomarkers for colorectal cancer.

Keywords: microRNA, biomarkers, colorectal cancer, diagnostics, prognosis