Cancer development is a highly complicated process which is not only limited to the growth of tumor cells but also requires interactions with other cells which results in the reprograming of the immune system for tumor's own needs. Among them is the modulation of monocyte function. Monocytes circulate in the blood and migrate into tissues, where differentiate into macrophages. The enormous plasticity of monocytes give rise to different populations of macrophages with distinct functions as a response to environmental factors. One of the microenvironment players which may affect monocytes are extracellular vesicles (EVs) derived from neighboring cell e.g. tumor cells. EVs are cell-derived particles that contain proteins, lipids and nucleic acids surrounded by the membrane. Colon cancer cells, which are subject of the propose study release EVs, which contain small noncoding RNA molecules, called microRNA. MicroRNA molecules were described to regulate many basic biological processes like cell proliferation, differentiation, motility etc. We hypothesize the role of microRNA, as the important component of colon cancer derived EVs responsible for modulation of monocytes activity. The aim of the study is to verify hypothesis about key role of miRNA, delivered from tumor cells to monocytes, in regulation of monocytes function. We think, that obtained results will help to find methods to control activity of monocytes or at least predict their function after differentiation to macrophages. We expect that profiling of EVs from plasma of colon cancer patients together with analysis of monocyte subpopulations will more accurately, comparing to the current methods, foresee changes in macrophage functions, allowing potential clinical relevance.