Dynamics of conversation: Immunotherapy meets tumor microenvironment

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The recent exciting success of cancer immunotherapy has emphasized the essential role of dynamic interactions between tumor cells and the immune system. Inflammation and massive infiltration of leukocytes is a hallmark of various tumor entities and recruitment of immune cells into the tumor microenvironment has been shown to contribute to patients’ clinical outcome in certain types of cancer. In contrast to conventional cancer therapies, such as radiation and chemotherapy, the immunotherapeutic approach specifically targets the different subtypes of immune cells and thus orchestrates a systemic response against tumors. However, depending on the context of the reciprocal interaction between cancer cells their surrounded stromal composition, the tumor microenvironment can both, dampen or enhance immune responses, directing patient’s survival.