An Update on Anti-CD137 Antibodies in Immunotherapies for Cancer

The selective expression of CD137 on cells of the immune system (e.g., T and DC cells) and oncogenic cells in several types of cancer leads this molecule to be an attractive target to discover cancer immunotherapy. Therefore, specific antibodies against CD137 are being studied and developed aiming to activate and enhance anti-cancer immune responses as well as suppress oncogenic cells. Accumulating evidence suggests that anti-CD137 antibodies can be used separately to prevent tumor in some cases, while in other cases, these antibodies need to be co-administered with other antibodies or drugs/vaccines/regents for a better performance. Thus, in this work, we aim to update and discuss current knowledge about anti-cancer effects of anti-CD137 antibodies as mono- and combined-immunotherapies.