

Review of: "Targeting Cancer Cell Signaling Using Precision Oncology Towards a Holistic Approach to Cancer Therapeutics"

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Potential competing interests: No potential competing interests to declare.

In the review article entitled by "Targeting cancer cell signaling using precision oncology towards a holistic approach to cancer therapeutics", the author comprehensively reviewed and summarized the recent research advances reported in literature. Several major and minor comments/suggestions are listed as below.

Major:

1. There are occasions that inaccurate statements were made by the author. For example:
 - a. In Page 2, one sentence starts as "The survival rates for cancer types that are responsive to therapy surpass 90% in developed countries...". Without mentioning it is 1-year or 5-year survival rate and what types of cancer are concerned, this statement is certainly misleading.
 - b. Also in Page 2, one sentence goes like "Tumors also develop frequently in hematopoietic tissues such as leukemia and lymphoma and in the nervous tissues, e.g., gliomas, and neuroblastomas". Based on the cancer statistics, both glioma and neuroblastoma are considered rare cancer.
 - c. In Page 32, one sentence starts as "Two types of T-cell transfer therapy, tumor-infiltrating lymphocytes or TIL therapy and CAR T-cell therapy are in use, and both involve harvesting autologous T cells infiltrated into the tumor...". Tumor infiltration T cells are usually not the cell source for manufacturing CAR-T therapies. Peripheral blood T cells are.
1. There are sentences that are not quite making sense. Please consider revising and make it clearer. For example:
 - a. In Page 3, one sentence goes like "Cell proliferation requires a balanced rate of cell growth and division to maintain the increase in cell numbers for growth and development, maintenance of tissue homeostasis and wound healing". Is the rate of cell growth and division essentially the same thing as cell proliferation?
 - b. Please consider revising this sentence in Page 4: "Traditionally, epigenetic and genetic changes have been seen as two separate mechanisms participating independently in carcinogenesis which may is not the whole regarding cancer development".
 - c. In Page 32, one sentence goes like "mAbs are important in cancer treatment as they may be exploited for potentiating the natural immune system by successfully mutualizing changes in immunogenicity of the affected cells during oncogenesis". The underlined does not make sense. Not sure if anyone could understand it as it is.
1. Both figures 1 & 4 were directly cited from ref 56, but there is a lack of proper citations in the figure legends and/or in

the text where the figures were mentioned.

Minor:

1. In Page 33, please consider changing “....use logic....” to something like “...use logic gate...”.
2. In Page 32, the sentence “Several immune checkpoint proteins are expressed by immune cells, such as T cells, and cancer cells capable of binding with other partner proteins to help cancer cells escape immune responses” is not very clear. Immune checkpoint receptors are expressed on immune cells. the ligands for these immune checkpoint receptors are often upregulated by tumor cells or tumor infiltrating cells.