

Cancer stem cells: therapeutic targets

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Abstract

Cancer stem cells (CSCs) have been identified as rare cellular populations in many cancers, including leukemia and solid tumors. This minor subpopulation of cancerous cells is immortal tumor-initiating cells which thought to be responsible for cancer initiation, progression, metastasis, recurrence and drug/radiation resistance. Low proliferative rate, high self-renewing capacity, differentiation into actively proliferating tumor cells, resistance to chemotherapy or radiation, expression of the stem cell surface marker, poorly immune-regulated and highly metastasize are distinct characteristics of CSCs in comparison with normal stem cells.

Up to now, some therapeutic strategies that selectively target CSCs have been identified and in some cases have been evaluated in clinical studies. The crucial regulating pathways in addition of surface biomarkers and also niche of cancer stem cells are considered as novel CSC-targeted therapeutic strategies aiming to eradicate malignancies.

Keywords: Cancer Stem Cells (CSCs), CSCs Targeting.

Poster Presentation

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