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Cancer stem cell research in Iran: Potentials and challenges

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Statement of the Problem: Cancer is a major public health problem in all countries across the world. Tumorigenic characteristics of tumors are related to a proportion of cancer cells, termed Cancer Stem Cells (CSCs). Therefore, therapeutic approaches have focused on identifying specific CSC markers to design novel agents for selective targeting of CSCs using such molecular markers.

Methodology & Theoretical Orientation: To review the previous and current attempts in the field of CSCs research in Iran, we explored PubMed, Embase, ISI Web of Science, Scopus and Scientific Information Data databases through a comprehensive search covering the literature until the end of October 2016.

Findings: The annual number of CSC papers from Iran shows a rapidly growing trend over the last decade, which indicates devoted efforts of Iranian scientists despite limited equipment and budget mainly stemming from the international sanctions imposed on Iran's economy. Due to the paucity of facilities for caring NOD/SCID mice in Iran, *in vivo* assessment of CSCs populations isolated from different malignant tumors was not as frequently performed when compared to studies from the more affluent institutions. There is a gap between the current experimental achievements (*in vitro* studies) and clinical translation in CSCs field in Iran.

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