**Stem cells in tumor therapy**

1. Definition of types of stem cells
2. Mechanisms underlying the action of stem cells in cancer. Homing to bone marrow
3. Mechanisms underlying the action of stem cells in cancer. Tumor-tropic effect
4. Mechanisms underlying the action of stem cells in cancer. Paracrine factor secretion and differentiation capacity
5. Mechanisms underlying the action of stem cells in cancer. Signaling in CSCs
6. The potential applications of stem cell therapy in cancer
7. HSC transplantation
8. MSC transplantation after cancer treatment
9. Stem cells as potential therapeutic carriers. Genetically modified stem cells
10. Stem cells as potential therapeutic carriers. Nanoparticles (NPs)-carrying stem cells
11. Stem cells as potential therapeutic carriers. Stem cells as carriers for oncolytic viruses (OVs)
12. Stem cells as potential therapeutic carriers. Stem cell-derived exosomes as therapeutic carriers
13. Stem cell source for production of immune cells and stem cell-based anti-cancer vaccines
14. Side effects and potential risks of stem cell therapy