

Special Issue for Letters in Drug Design & Discovery

Guest Editor: Dongxi Xiang, M.D., Ph.D

Title: Pharmaceutical design for targeting cancer stem cells

Aims & Scope:

The cancer stem cell (CSC) model suggests that only a subpopulation of cells within a tumor has the ability to self-renewal, differentiate and regenerate similar new tumors following xenotransplantation into immuno-deficient mice. It is increasingly accepted that CSCs, as roots of cancer, are responsible for drug chemoresistance, leading to tumor relapse and the failure of current cancer treatment. It is therefore essential for pharmaceutical design to therapeutically target CSCs and monitor CSC post-treatment. The principal aim of this thematic issue is to present the up-to-date development in CSCs with a focus on CSC-targeted drug discovery, delivery and treatment. Future elucidation of molecular and cellular mechanism underlying CSC biology coupled with the ideal pharmaceutical design could lead to the development of efficacious novel treatment strategies that eradicate both the bulk of non-CSCs and CSCs.

Keywords: Cancer stem cell, chemoresistance, stemness, targeted cancer therapy, anticancer drug development, pharmaceutical design, pharmacodynamics

Subtopics:

1. Cancer stem cell biology and cancer development
2. Drug chemoresistance of cancer stem cell and the failure of cancer treatment
3. Current status of pharmaceutical design for targeting cancer stem cell
4. Targeting cancer stem cell as an approach for anticancer therapy

Schedule:

Manuscript submission deadline: **October 1, 2015**

Peer Review Due: **November 1, 2015**

Revision Due: **December 1, 2015**

Notification of acceptance by the Guest Editor: **December 10, 2015**

Final manuscripts due: **December 22, 2015**