

Tentative Outline

Special Thematic Issue for Current Cancer Therapy Reviews

Aptamers in Cancer Therapeutics

Guest Editor: Seema Nara

Aims & Scope:

Aptamers have presented themselves as a stable and cost effective alternative to antibodies while possessing equivalent affinity and specificity to the target. These are short DNA or RNA oligonucleotides which can adopt unique three dimensional conformations to strongly bind to their target. They can be easily introduced on the surface of nanostructures or drug carriers because of their facile surface modification and flexibility. The first aptamer based drug approved by US Food and Drug Administration (FDA) is, Macugen[®] (pegaptanib), which treats wet-age-related macular degeneration. Since then their role is being investigated in specific targeting of various cancers and emphasis is on developing aptamer drugs to replace antibody based therapeutics. However this technology also faces challenges for successful clinical translation which needs to be addressed.

Keywords: Aptamers, antibodies, oligonucleotides, nanostructures, drug, Macugen, therapeutics

Subtopics:

1. Aptamers as tool in cancer therapeutics
2. Aptamers in clinical trials
3. Patents on cancer aptamers
4. Challenges of aptamers technology in cancer therapeutics
5. Aptamers-Nanostructures for cancer targeting

Schedule:

- Manuscript Submission Deadline: September 2019
- Peer Review Due: November 2019
- Revision Due: January 2020
- Notification of Acceptance by the Guest Editor: March 2020

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