Recent Patents on Anti-Infective Drug Discovery

**Title of the issue:** Nanomedicines for the treatment of tuberculosis: Role of nanocarriers and functional excipients

**Background:** The recent epidemiology data suggests that the prevalence of tuberculosis has been found to be escalating globally in developing countries owing to the increase in the incidence of HIV cases, increased emergence of drug resistance as well as increase in the number of elderly patients. The currently available drug therapy including the established as well as newly discovered cases of anti-tubercular drugs have provided vital role in the tuberculosis when administered in the form of novel nanomedicines for multifold augmentation in the therapeutic outcomes. The present thematic issue, in this context, would primarily highlight the recent advancements in nanomedicines-based drug treatment approaches for the effective treatment of tubercular infections for the major challenges in conventional therapy, recent approaches for enhanced targeted drug delivery and the clinical aspect of treatment. Moreover, nanotechnologies-based delivery systems are discussed followed with important patents related to the current domain.

**Aims & Scope:** To address the need new approaches to combat the tuberculosis in developing countries employing current therapies systems for advanced therapeutic and diagnostic strategies. These challenges need to be addressed with therapies to boost the quality and degree of successful treatment. It is possible to breed practical strategies in the near future for the prevention and treatment of this menace in the developing zone.

**Description:** Currently, the increased globally cases of tuberculosis dictated to continue long term extensive efforts in tuberculosis research to rectify the problems in treatment. Despite the inherent limitations in conventional drugs and conventional drug delivery systems, current anti-tubercular active drugs have everlasting vital position in the tuberculosis treatment using nanocarriers based therapy. In present review, we mainly would like to address pathogenesis, diagnosis, and the major challenges in conventional therapy, recent approaches for enhanced targeted drug delivery and the clinical aspect of treatment. In addition, nanotechnologies based delivery systems are described with important related patents in last decades with major finding. Current valuable information regarding tuberculosis therapy as revealed in recent WHO (World Health Organization) report and a short future scope of translational approach in research in the current therapy as “from bed to laboratory”.
Details about the articles

Title no: 1: Recent complications and issues in tuberculosis treatment

Title no: 2: Current approaches and future prospects in tuberculosis therapy

Title no: 3: New drug candidates and vaccines for tuberculosis therapy

Title no: 4: Nanomedicines for the treatment of tuberculosis

Title no: 5: Lipid-based nanocarriers for the treatment of tuberculosis

Title no: 6: Polymeric nanocarriers for the treatment of tuberculosis

Title no: 7: Nanomaterials and nanocomposites for tuberculosis treatment

Title no: 8: Nanostructured biological therapeutics for tuberculosis treatment

Time frame:

Manuscript submission deadline: 30th November, 2015

Peer Review Due: 31st December, 2015

Revision Due: 20th January, 2015

Notification of acceptance by the Guest Editor: 5th February, 2015

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