

Tentative Outline

Special/Thematic Issue for the journal "Current Pharmaceutical Design - CPD"

Tentative Title: Theranostic based nanoparticles in mitigation of CNS disorders

Guest Editor: Rahul Shukla

Scope of the Thematic Issue:

Central nervous system (CNS) based disorders pose a great challenge due to poor inaccessibility of therapeutics and diagnostics in brain. Blood-brain barrier (BBB) hinders the entry of molecules across the brain from blood. Most herculean task that haunts the scientist is treatment and understanding the underlying pathways that attenuate neurodegenerative disorder. As the concern for neurodegenerative disorder is increasing day by day because of more prominent rise in number of cases related to Alzheimer's disease, Parkinson's disease, Huntington disease and many more. Findings on the regulation of therapeutic and diagnostic agents based on nanotechnology platforms have entered the clinical phases. This special issue will focus on the treatment and diagnostic strategies involving nanotechnology technique based on advanced and future aspect for counteract neurodegenerative disorder. This issue will be beneficial for researcher who focused on nanotechnology based technique as therapeutic and diagnostic tool with special emphasis on brain targeted delivery. The objective of this issue is to collect research and review articles to provide update knowledge pertaining to pharmaceuticals discipline.

Keywords: Nanotechnology, drug targeting, diagnosis, neurodegeneration, blood brain barrier

Sub-topics:

- Recent advances in nanotechnological events for therapeutics for CNS delivery.
- Targeting of theranostics as a prominent tool for innervating neurodegenerative diseases.
- Preclinical and clinical relevance of theranostic fabricated via nanotechnology.
- Regulatory challenges exhibit by nanotechnology-based theranostics.
- Alternative strategies for enhanced theranostic delivery in CNS like the Intranasal route of administration receptor-mediated targeting, co-administration strategy, stimuli-based strategy and many other advanced events.

Tentative titles of the articles:

- Anatomical and physiological hurdles in brain permeation and alternative strategies for brain delivery.
- Extracellular vesicular based systems for brain delivery
- Intranasal route as an alternative route for effective brain delivery
- Surface functionalized nanosized anticancer in brain carcinoma
- Quantum dots as a prominent diagnostic tool and its application in brain disorder
- Nano-colloidal based therapeutics in the innervation of neurodegenerative disorder
- Application of nanoengineered approaches in brain imbedded infectious diseaReceptor-mediatedated targeting of theranostic in brain
- Biomimetic based theranostic nanoparticles application in neurodegenerative disorders
- Metallic nanoparticles as a prominent tool in counteract brain-derivatives disorder
- Application of nuclear medicine as a prominent tool in brain imaging
- Acoustic based technology for the application of theranostic in brain Cell-penetratingetrating proteins as promising theranostic in brain delivery
- Future potential of theranostics in combating neurodegenerative disease

Schedule:

- ✧ Complete Thematic issue submission deadline: **July 2022**

Details of Guest Editors:

Guest Editor Name: Rahul Shukla

Affiliation: Assistant Professor, Department of Pharmaceutics, NIPER-Raebareli, Lucknow
226002, U.P., India

Email: rahulshuklapharm@gmail.com