

## Thematic Issue for Current Pharmaceutical Design

“Emerging Trends in Nanomedicine for Topical Delivery: Current Status and Translational Approaches”

Guest Editors:

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### Aims and Scope

Recent advances in nanotechnology-based topical nanocarriers have gained significance due to their ability to cross skin barriers leading to effective delivery of the drugs. Topical nanomedicine also provides improved pharmacokinetics of the drugs as compared to conventional topical dosage forms. Nanocarriers currently under investigation for topical drug delivery include a wide range of discrete formulation categories ranging from nanoparticle suspensions, nanogels and spray units. The choice and design of the nanocarrier for a given topical application is driven by fundamentals such as the permeation mechanisms through the skin, and interactions at the biological interface. However, an ultimate and important consideration in the development of such nanomedicine directly relates to their bench to bedside translation potential for the benefit of the patients. Current efforts in this field are moving towards the scale up, stability and reproducibility of nanocarriers for the effective topical drug delivery.

The focus of this thematic issue is to bring together research activities pertaining emerging trends in nanomedicine for topical delivery including successes and challenges in this field. Articles related to targeting approaches through the topical route, nanoparticle and drug permeation mechanisms, and critical factors involved in the delivery through skin are also welcome.

**Keywords:** Nanocarriers, topical drug delivery, Targeted drug delivery, permeation, skin disorders.

**Subtopics: but not limited to**

Nanocarriers for topical drug delivery for various skin disorders including psoriasis, wound healing, topical fungal infection, atopic dermatitis, skin cancer; In-vitro and ex-vivo characterization methods for topical drug delivery systems, Surface modified nanocarriers for targeted topical delivery; Challenges in gene delivery through topical route.

**Schedule**

- Manuscript submission deadline: 31 Jan 2020
- Peer Review Due: 15 March 2020
- Revision and final manuscript submission by the authors: 15 April 2020
- Announcement of acceptance by the Guest Editors: 30 April 2020
- Final Manuscript Due: 15 May 2020