

Tentative Outline

Special Thematic Issue for the journal: Current Drug Metabolism (IF: 3.731)

Title of Thematic Issue: Vesicular Drug Delivery Systems: Improved Pharmacokinetics Properties and Safety Profile of Pharmaceutical Substances

Guest Editor: Dr. Ram Kumar Sahu & Dr. Bijo Mathew

Scope of the Thematic Issue:

Vesicular drug delivery systems have a lot of benefits and great potential in medical and pharmaceutical applications. The efficacy, solubility, stability, safety, physicochemical properties, pharmacokinetic/pharmacodynamic properties, and rapid degradation of drug molecules have all been improved using vesicular drug delivery systems. Liposomes, Phytosomes, Niosomes, Transfersomes, Aquasomes, and several other novel vesicular drug delivery systems have been developed till the date, facilitating drug targeting and sustained or controlled drug release. Moreover, this delivery system controlled drug efficacy at a predetermined rate, maintained a relatively constant, effective drug level within the body, and minimised undesirable side effects at the same time. It also might confine drug action in the particular organ by targeted drug delivery using carriers or chemical derivatization. The scope of this special issue of Current Drug Metabolism is to bring together all the research findings on biopharmaceutical properties, efficacy, safety and pharmacokinetic properties of vesicular drug delivery systems performed by various researchers using in vitro, in silico, and in vivo studies. There will also be a discussion of certain limitations that inhibited the bioavailability of pharmaceutical substances delivered by vesicular drug delivery systems.

Keywords: Vesicular drug delivery system, Pharmacokinetic, Safety, Biopharmaceutical, Herbal drug, Nanoscience, Biomacromolecules, Targeted drug delivery

Sub-topics:

The subtopics to be covered within (but not limited to) this issue are listed below:

- Physical, physico-chemical, and chemical approaches are currently being used to targeted delivery of drugs and vaccines
- Emerging techniques and formulations for controlled drug transport across biological barriers
- Advances in nanomaterials and their targeted delivery for therapeutic and diagnostic purposes
- Various existing targeting approaches for the controlled delivery of oral nano-delivery systems for effective treatment of different disease
- Hybrid lipid–nanoparticle complexes as an innovative method for nanocarriers drug delivery to overcome instability, limited membrane permeability and poor bioavailability of drug
- Mechanisms of nanoparticle cellular uptake and their effect on drug delivery for improved therapeutic efficacy
- Herbal drug loaded into pharmaceutical carrier techniques: Strengthening Bioavailability and Exploring the Infinite Frontier of Phytopharmaceuticals
- Fundamentals of advanced colloidal based technologies in designing of drug for improved bioavailability
- Understand the concept of biological membranes in order to transport and targeting of active agents via various vesicular drug delivery systems such as Niosomes, Liposomes, transfersomes, Phytosomes, Pharmacosomes, Enzymosomes, Virosomes, Ufasomes, Cryptosomes, Emulsomes, Discomes, Aquasomes, Ethosomes, Genosomes, etc
- Pharmacokinetic considerations and challenges of poorly absorbed drugs: Nano vesicular drug delivery

strategy to overcome

- Cell Signalling Pathway activation through targeted drug delivery for effective therapy
- Recent laboratory development, challenges and future prospects of Biomacromolecules as carriers in drug delivery and tissue engineering
- Integrating computational chemistry and drug delivery techniques: from targets to therapies

Schedule:

Manuscript submission deadline: January 15, 2022

Contacts:

Guest Editor Name:

Dr Ram Kumar Sahu

Affiliation: Department of Pharmaceutical Science, Sushruta School of Medical and Paramedical Sciences, Assam University (A Central University), Silchar-788011, Assam, India

Email: ramsahu79@yahoo.co.in or ramsahu79@gmail.com

Dr Bijo Mathew

Affiliation: Amrita School of Pharmacy, Amrita Vishwa Vidyapeetham, AIMS Health Sciences Campus, Kochi-682 041, India

Email: bijovilaventgu@gmail.com