Conferenceseries.com ^{3rd} International Conference on BIOPHARMACEUTICS AND BIOLOGIC DRUGS & 5th INTERNATIONAL PHARMACY CONFERENCE August 31-September 01, 2017 Philadelphia, USA

Nanoemulsion as targeted drug delivery system for cancer therapeutics

Rubi Mahato Fairleigh Dickinson University, USA

N anoemulsion serves as an attractive vehicle for the delivery of drugs, nucleic acids as well as imaging agents. Recently nanoemulsions have been extensively used for cancer diagnostics, imaging and therapy, especially due to their favorable properties to efficiently solubilize poorly aqueous soluble drugs, biocompatibility, high stability *in vitro* and *in vivo*, and their ability to accumulate in pathological areas with defective vasculatures. Since nanoemulsions are submicron emulsions with the droplet size falling in colloidal dispersion range, they impart the benefit of overcoming the anatomical and physiological barriers associated with drug delivery to the complex diseases such as cancer. Moreover, nanoemulsions can be engineered to carryout multiple functions by surface modification and encapsulation of pharmaceutical ingredients. Surface modification can be done by imparting the surface charge, attaching a targeting ligand, cell penetrating moieties, stimuli-sensitive groups and fluorescent dye, whereas the core can be loaded with drug, contrast agent and imaging agents. Such multifunctionality of nanoemulsion can be tailored to fit the requirement, hence smart nanoemulsions can be prepared.

Biography

Rubi Mahato received her interdisciplinary Ph.D. in Pharmaceutical Sciences and Chemistry from University of Missouri-Kansas City in 2014. After that, she joined as an assistant professor at the school of Pharmacy at Fairleigh Dickinson University. She has authored several research and review articles and book chapters. She also serves as a regular reviewer for many prestigious journals, as well as editorial board member for various journals. Her research interests include drug release analysis from transdermal patch, development of targeted delivery systems, ayurvedic treatment for arthritis, and pedagogical research.

rmahato1@fdu.edu

Notes: