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Abstract

Invasomes: A Novel Nano carrier For Vesicular Drug Delivery System

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Abstract:
Invasomes are liposomal vesicles embodying small amounts of ethanol and terpenes or terpene mixtures, which act as potential carrier with increased skin penetration. Invasomes have higher perforation rate through the skin compared to liposomes and ethosomes. Invasomes are novel elastic phospholipid vesicles contains phosphatidylcholine, ethanol and one or mixture of terpenes. Several researchers have confirmed the ability of terpenes in an increasing percutaneous penetration. Their penetration-enhancing activity is through the disruption of the stratum corneum lipids, interaction with intracellular proteins and improvement of partitioning of the drug into the stratum corneum. Ethanol improves the vesicular ability to penetrate the stratum corneum. In addition, ethanol provides net negative surface charge and prevents vesicle aggregation due to electrostatic repulsion. A synergic effect between terpenes and ethanol on the percutaneous absorption has been remarkably observed. Terpenes, the naturally occurring volatile oils which are included in the list of generally recognised as safe substances with low irritancy at lower concentrations (1-5%), with reversible effect on the lipids of stratum corneum are considered as the clinically sustainable penetration enhancers. Invasomes provide a number of advantages as well as improves the drug efficacy, enhancing patient compliance and comfort. Enhanced delivery of drug through the skin and cellular membranes by means of an invasomes carrier opens numerous challenges and opportunities for research and future development of novel improved therapies.

Key Words: Terpenes, Soya lecithin, Invasomes.

Biography:
Xianqi Wei is a lecturer of Jiangsu Ocean University. Shehas completed his PhD from Xi'an Jiaotong University in2016 and Postdoctoral had studied from School of electronics and information engineering, Xi'an Jiaotong University from 2016-2019. She is reviewer for "Nanotechnology", "Journal of nanomaterials" etc. Her research interest is focused on carbon based electronics and their application.

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