Resilience and Quality of Life: Exploring The Role of Bio-Psychosocial Support In Breast Cancer Survivors with Cancer Related Fatigue

PHILISHA MACK

ABSTRACT: Cubosomes and hexosomes are receiving much attention in drug delivery, particularly due to their unique properties, nanostructural versatility and capability of solubilizing various drugs and bio-imaging probes. However, their poor biocompatibility in human blood and the possibility of inducing hemolysis and inadvertent activation of the complement system (which is the first line of the body's defense system) are limiting their use in parenteral application (e.g., IV). Therefore, it is imperative to understand the factors affecting these incompatibility issues, including the stability of these nanostructured dispersions on direct exposure to biological fluids such as plasma and the potential toxicity of the main lipid constituents or stabilizers, which need to be considered as a first step towards designing safe and efficient injectable nanocarriers. This work present complementary biophysical methods involving SAXS, cryo-TEM, and NTA that were used to gain insight into the structural stability, morphological and size characteristics of these non-lamellar liquid crystalline (LC) nanodispersions upon plasma incubation, as well as to highlight the mechanistic issues pertaining hemocompatibility. Through optimization of lipid core, we showed an intriguing LC nanodispersions that could totally overcome plasma-induced destabilization effect on the internal nanostructures and bypassed hemolysis and complement activation as well as potentially modulate the susceptibility to macrophage uptake, which particularly interesting and beneficial in the application of non-inflammatory MPS targeting. Although there is still a long way to go for the development of pharmaceutical viable cubosomes and hexosomes as injectable nanocarriers, this study could be of interest for future exploitation in the development of immune-safe and cost-effective soft nanocarriers for delivering sensitive therapeutic/contrast agents.

Biography:-

Philisha Mack is a Family Nurse Practitioner with over 10 years of experience in therapeutic areas of Cardiology, Immunology, Hospice, Medical Surgical, Critical Care, Pediatric and Family Practice. She is a PhD Candidate with a research focus of Resilience and Quality of Life: Exploring The Role of Bio- Psychosocial Support In Breast Cancer Survivors with Cancer Related Fatigue. She has worked in top Pharmaceutical, Medical Device and Biopharmaceutical Companies in Drug Safety, Pharmacovigilance, Safety Surveillance and Aggregate Analysis. She is currently serving in role as a Global Clinical Safety Manager. She is passionate about Diversity and Inclusion within Clinical Trials and has authored a book on this topic as well as is a sought after coach, speaker and trainer. She is also owner of The Mack Institute Health Care Consulting Firm..

REFERENCES

1. Green's function for second order elliptic equations with singular lower order coefficients
2. On scale invariant bounds for Green's function for second order elliptic equations with lower order coefficients and applications
3. Boundary value problems in Lipschitz domains for equations with lower order coefficients
4. Boundary value problems in Lipschitz domains for equations with drifts
5. Scale invariant regularity estimates for second order elliptic equations with lower order coefficients in optimal spaces

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Hampton University, Hampton Virginia/The Mack Institute Health Care Services