Polymeric carriers for drug delivery system: Comparison study of effects of chitosan derivative and 1st tier dendrimer on Methotrexate release

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Abstract:
A comparative study of chitosan derivative with methionine (CM) and trimesoyl 1, 3, 5-tridipropyl malonate ester (TTDPM) as drug delivery vehicle encapsulated with the model drug (Methotrexate: MTX) individually, for breast cancer drug delivery system. MTX-TTDPM and MTX-CM were prepared using a 1 : 1 ratio of MTX, TTDPM and MTX, CM in acetone and ionotropic gelation medium at RT followed by 24 and 3 h respectively. MTX interact with TTDPM and CM by hydrogen bonding confirmed through FTIR and further characterized by SEM, HR-TEM and DLS for their morphological and narrow particle size distribution respectively. TTDPM and CM has functionality which assistances to bind MTX anticancer drugs for their imminent use in breast cancer drug delivery system. Effects of TTDPM, CM and their complexes with MTX were studied for MTX release in phosphate buffer saline (pH 7.4) + 10% DMSO and phosphate buffer saline (pH 7.4) respectively.

Biography:
Dawn Fleming has been involved with Holistic Energy Medicine since 1989 studying Chakra Balancing, Reiki, Therapeutic Touch, Polarity, and other modalities. Dawn is a renowned energy expert and teacher with clients and students world-wide. She has presented at the National level for the American Holistic Nurses Association and the American Massage Therapists Association. She is the Northern Arizona IONS facilitator offering presentations on Alternative Healing. She is also a Life Coach. Dawn Fleming is the author of many energy related books and articles.