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## **Management of breast cancer using combine nanoformulation of Camptothecin and mycophenolic acid**

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The present investigation also reports preparation, optimization and characterization of nanoparticles of mycophenolic acid (MPA) and CPT individually. The developed formulations of mycophenolic acid were found to have particle size 95 nm, and 86 nm respectively in case of MPA and CPT. UV and FTIR spectra revealed the presence of both drugs in their individual formulations. In case of encapsulation the MPA encapsulated almost double as compared to CPT inside the formulations. In addition the release rate of MPA is also higher in comparison to CPT. Higher cytotoxicity of MPA-Zein + CPT-Zein-NPs in MCF-7 cells revealed higher efficiency of the formulation. Significantly higher late apoptosis was observed in the case of combine MPA+CPT NPs formulation in contrast to respective free drug(s) and their combination when tested against MCF-7 breast cancer cell line. In nutshell, combine strategy with MPA+CPT NPs could be a promising approach in improving the delivery of MPA and CPT for cancer therapy.

**Keywords:** Mycophenolic acid, Camptothecin, Cancer.

### **Biography**

He has got almost 10 years of work experience in the field of Teaching and Research at the national and international levels. He has very broad research experience in the field of Pharmaceutical Biotechnology, Enzymology, Fermentation and Nano-biotechnology. He has published more than 25 international publications and one patent.

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