

Abstract Submitted
for the MAR16 Meeting of
The American Physical Society

Effect of microemulsions on cell viability of human dermal fibroblasts JUYI LI, TATSIANA MIRONAVA, MARCIA SIMON, MIRIAM RAFAILOVICH, NISSIM GARTI, State Univ of NY- Stony Brook — Microemulsions are optically clear, thermostable and isotropic mixture consisting of water, oil and surfactants. Their advantages of ease preparation, spontaneous formation, long-term stability and enhanced solubility of bioactive materials make them great potentials as vehicles in food and pharmaceutical applications. In this study, comparative in vitro cytotoxicity tests were performed to select a best formulation of microemulsion with the least toxicity for human dermal fibroblasts. Three different kinds of oils and six different kinds of surfactants were used to form microemulsions by different ratios. The effect of oil type and surfactant type as well as their proportions on cell proliferation and viability were tested.

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Date submitted: 06 Nov 2015

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