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## Effect of lipid digestion media on the fate of drug in lipid based nanoemulsion

R Suresh Kumar, Ashwati Prakash and K Gowthamarajan  
JSS University, India

The current development strategies in the area of lipid based drug delivery system demands a large number of animal experiments and consumes time and money. Hence there is a need to simplify the *in vitro* method in order to aid in the suitable selection of lipid vehicle. Nanoemulsion for the drugs fenofibrate, rosuvastatin and olanzapine was formulated with the different combination of surfactants and co-surfactants. Prior to the lipid digestion, solubility of the drugs in different oils were carried out. It was found that capryol90 solubilized maximum quantity of fenofibrate of almost 270 mg/ml and olanzapine 41.2 mg/ml whereas, capmul MCM solubilise drosuvastatin to an extent of 60 mg/ml. Lipid digestion was performed for these combinations, it was shown that capryol90 released maximum quantity of the drugs fenofibrate and olanzapine into the aqueous phase resulting in better solubility even after digestion. Whereas, capmul MCM though showed maximum solubility of rosuvastatin, led to precipitation during lipid digestion. Hence, even though capmul MCM shown highest solubility but not necessarily could act as an oil phase for rosuvastatin where as capryol 90 could be utilized as a carrier as oil phase for fenofibrate and olanzapine.

### Biography

R Suresh Kumar is a Research Scholar at JSS College of pharmacy, Ootacamund, India. He has 5 international and 10 national publications and 3 patents filed to his credit. He has published a book. He has organized and attended various seminars.

[sureshcoonoor@yahoo.com](mailto:sureshcoonoor@yahoo.com)