

Pharmacy

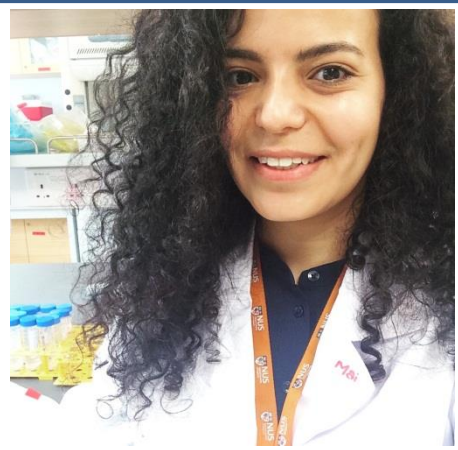
Department Seminar

Date: 17th July 2017

Time: 5pm

Venue: S4A Level 3
Room A & B

Quantification and Formulation of Apigenin Trimethylether (ATE): Application to Preclinical Pharmacokinetic Studies



Mai Gamal El Hennawy graduated from Cairo University (Egypt) with a Bachelor in pharmacy degree (honors) and registered as a pharmacist in Cairo. She worked as a teaching assistant at MSA University (Egypt) and also obtained her Master's degree in Formulation and Drug delivery at Cairo university in 2013. Currently, Mai is pursuing her PhD under the supervision of Lin Haishu. Her research focuses on pharmacokinetics of flavones and SMEDDS. (Self Micro-Emulsifying Drug Delivery Systems)

Apigenin trimethyl ether (5,7,4'-trimethoxyflavone, ATE) is a naturally occurring polymethoxyflavone with a wide range of health-promoting activities. There has been growing interest in exploration of ATE and similar compounds from the same family because of their diverse pharmacological activities, and promising medicinal benefits.

However, there seems to be a literature gap on pharmacokinetic data due to lack of a robust analytical method for ATE quantification.

In this seminar, we will discuss the development and validation of a sensitive liquid chromatography–tandem mass spectrometry (LC–MS/MS) method for the quantification of ATE in rat plasma. As an application, we established oral pharmacokinetic profiles.

After obtaining enough data to establish the fact that low aqueous solubility of ATE acts as a barrier for its bioavailability, we attempted to enhance it by formulating ATE into Self Micro-Emulsifying Drug Delivery Systems (SMEDDS) which are well recognized for their enhancing effects on rate and extent of oral absorption.

Finally, we will briefly go through future plans and aspirations.