

8<sup>th</sup> World congress on**BIOAVAILABILITY & BIOEQUIVALENCE: PHARMACEUTICAL R & D SUMMIT**

June 26-27, 2017 San Diego, USA

**Drug delivery and bioavailability practice among urban and rural dwellers in Nigeria**Lawrence C. Chuku  
Nigeria

Solubility is an essential component in drug formulation, administration and bioavailability. The nature of solvents used is essential as the fate of drugs especially at sites of absorption greatly depends on it. Hence, the choice of solvent used in the preparation and delivery of drug and drug product is of huge importance to the efficacy and therapeutic activity of drugs. Chemical constituents, molecular weight and the design of a drug influences the pharmacological responses observed after administration. In Sub-Saharan Africa (e.g. Nigeria, Ghana, Cameroon, Chad, etc) local dwellers over the years have relied mostly on aqueous (water based) medium for effective drug formulation and delivery, an act locally referred to as "Tradomedicine". The chemical and physical properties of water are attributes that enhance high biodistribution and low toxicity at cellular level. The use of alkaline based polymers in coating drugs or drug components susceptible to pH influence when administered orally is one of advance techniques employed in addressing the challenges of bioavailability. Emerging trend in most pharmaceutical industries on products with high lipophilic (lipid-based) property is of key interest due to the nature of the cell membrane. In areas of administration (route), solubility, stability, efficacy, affordability and reduced side effect/ toxicity, the pharmacological effect of lipid-based drugs is quite commendable. This emerging technology to an extent addresses among other issues, those bothering on inter and intracellular movement of low molecular weight drug components.

chuku\_lawrence@yahoo.com

Notes: