

## **Chapter Three: Data Analysis and Results**

### **Pharmacokinetic Parameters' Analysis**

The primary endpoint targeted parameters; area under the plasma concentration time curve from time zero to the last sampling time and to infinity (AUC<sub>0-t</sub>, AUC<sub>0-∞</sub> respectively), were calculated using a computer software program specially designed for such purposes, Kinetica 2000 version 4.2, Innaphase Corporation, France.

The primary parameter; the maximum concentration of the drug in the plasma samples (C<sub>max</sub>), was determined from the plasma profile of each subject.

The secondary endpoint targeted parameters; half-life of drug (T<sub>1/2</sub>) and elimination constant (K<sub>el</sub>) were calculated as well using Kinetica 2000 version 4.2. The secondary parameter; time required to reach maximum concentration of the drug (T<sub>max</sub>) was determined from the plasma profile of each subject.

### **Statistical Analysis**

All data were statistically analyzed with SPSS version 17. Results were compared using one-way analysis of variance (ANOVA) and paired student T-test.

Values of p<0.05 were considered to be significant.