

## ***Pharmacology Department***

In 2011, among 32 African institutions selected as ANDI Centres of Excellence in health innovation, TBRI represented by pharmacology laboratory; was assigned as the “ANDI Centre of Excellence on Anti-Trematodal R&D” by the Scientific and Technical Advisory Committee (STAC) of the African Network for Drugs and Diagnostics Innovation (ANDI).

Drug Evaluation and Discovery Unit (DEDO), a subsidiary of pharmacology laboratory, will help in support and development of the activities of the center. The excellencecentre is willing to collaborate with ANDI and with other African institutions with a focus on natural products, to complement research lines regarding the prevalent endemic diseases, and to increase our south-south collaboration to address specific health problems in the African continent. Moreover, it is looking for exchange visits between researchers with different capacities to help in building *De Novo* capacities, leverage existing ones through not only exchange of visits but also through training and execution of collaborative research projects.

**The activities of the centre include the following training programmes:**

1. *In vitro* testing of antischistosomal activity of drugs/compounds (**duration:** one week). The programme includes; preparation of culture media, different concentrations of drugs/compounds, testing of worms' viability/mortality, assessment and comparison of different compound potencies (LC<sub>50</sub>) in comparison to the reference compound.

**Fees:**1500EGP for Egyptians/400US\$ for non-Egyptians

**The maximum available places are 5-7 persons/programme.**

2. *In vivo* testing of antischistosomal activity of drugs/compounds (**duration:** one week). The programme includes; animals handling, how to infect animals,

routes of drug administration, perfusion of animals, worm and egg counts, percentage egg developmental stages (Oogram pattern) and determination of ED<sub>50</sub> of drugs/compounds.

**Fees:**2000EGP for Egyptians /500US\$for non-Egyptians

**The maximum available places are 5-7 persons/programme.**

3. Determination of acute and chronic toxicity of drugs/compounds (**duration:** one week). The programme includes; determination of the three cardinal parameters of mortality LD<sub>16</sub>, LD<sub>50</sub> and LD<sub>84</sub>, acute and chronic toxicity using low doses of LD<sub>50</sub>, biochemical assessments and data interpretation.

**Fees:** 1500EGPfor Egyptians/250US\$ for non-Egyptians

**The maximum available places are 5-7 persons/programme.**

**Pharmacology laboratory performs other training programmes:**

1. Isolation of hepatocytes (**duration:** one week). The programme includes; preparation of culture media and reagents, animals handling, perfusion of rat liver through portal vein, isolation of hepatocytes and cytotoxicity testing (MTT or SRB)/ compound.

**Fees:** 3000EGP for Egyptians/ 600US\$ for non-Egyptians

**The maximum available places are 3-5 persons/programme.**

2. Bioavailability of drugs/compounds (e.g Bioavailability of praziquantel (PZQ) &Paracetamol) (**duration:** one week). The programme includes; preparation of standards and reagents, extraction of drugs, sampEGP injection by HPLC and calculation of pharmacokinetic data.

**Fees:**2500EGP for Egyptians/ 500US\$ for non-Egyptians.

**The maximum available places are 3-5 persons/programme.**

