A079 *In vitro* antioxidant properties of an standardized extract of *Hypericum perforatum* L.

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Hypericum perforatum L. (HP) has been widely employed for its significant benefit in mild to moderate depression (1). Besides, HP has shown to inhibit free radical production in both cell-free and human vascular tissue (2). Depression is characterized by an enhanced susceptibility to lipid peroxidation, defective plasma antioxidant defenses and increased catabolism of monoamine neurotransmitters (3). Since oxygen free radicals may have an important role in the mechanism of depression, we attempted to investigate the antioxidant properties of an hydroethanolic standardized extract of HP (0,3 % of total hipericins). Using free-radical generating systems, HP extract protected against enzymatic and non enzymatic iron-induced lipid peroxidation in rat liver microsomes in a concentration-dependent fashion (IC_{50} values of ~100 µg/mL and 85.79 µg/mL, respectively), and also showed a potent inhibition of the superoxide anion generation by the hypoxanthine/xanthine oxidase system (IC_{50} = 16.15 µg/mL). Quercetin was used as reference antioxidant compound. From 100 to 400 µg/mL, the extract decreased hydroxyl generation in the Fe^{3+} - ascorbate-EDTA-H_2O_2-deoxyribose system, in an extent of 40-50%. The *in vitro* antioxidant effects shown by this standardized extract of HP could contribute, as an approach, in the study of treatment strategies antioxidant drugs for depression.

References: 1. Philipp, M. et al. (1999) BMJ 319:1534-1538. **2.** Hunt, E. et al. (2001) Life Sci 69:181-190. **3.** Bilici, M. et al. (2001) J Affect Disord 64: 43-51.

A080 Antioxidant activity of *Kigelia pinnata* extracts

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Kigelia pinnata DC (Bignoniaceae) is native to the drier tropical regions of Africa and has been used by local indigenous groups for a wide range of medicinal uses (1). Particular attention has been paid by our group to the bark and the fruit extract because of reports that these are used to treat pathological skin disorders such as ulcers, sores, dermatitis and cancers. The relationship between oxygen free radicals and damage to skin is scientifically well documented (2) and so, in light of its ethnopharmacological use for skin diseases, it was considered rational to determine the antioxidant properties of *Kigelia pinnata* extracts. The extracts consisted of a petrol extract **1** and an ethanol extract **2** of the fruit, an ethanol extract of the stem- and root-bark **3** and a dichloromethane extract of the dried fruit **4**. All the extracts were tested using two techniques: the TBA-assay to detect liposome lipid peroxidation (3) and the TLC-DPPH assay (4) to detect the compounds responsible. The ethanol extract of stembark and rootbark **3**, showed a strong antioxidant activity (see Table) gave several zones in the DPPH test.

Table. IC_{50} values (µg/ml) of extracts on lipid oxidation:

Extract	IC_{50} value µg/mL (compared to 0.1 mM propyl gallate)
1	>10000
2	>10000
3	100
4	2500

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