

## **IN VITRO ANTIOXIDANT ACTIVITY OF ALCOHOLIC EXTRACTS OF LEAVES AND FLOWERS OF NASTURTIUM (*TROPAEOLUM MAJUS*L.)**

**Bicalho, J.M<sup>1,2</sup>, Hermes-Lima, M<sup>1</sup> and Santos, N.C.F<sup>1,2,3</sup>**

<sup>1</sup>Oxyradical Research Group, CEL, UnB;  
<sup>2</sup>PPG-NUT, UnB; <sup>3</sup>CNPq, Brasília, DF, Brazil.

The nasturtium (*Tropaeolum majus* L.) is a native plant from Mexico and Peru in which leaves and flowers are used in salads due to its adorning and tasting qualities as well as medicinal effects. The aim of this study is to evaluate whether or not flower and leaves extracts from nasturtium present antioxidant properties. Previous reports have shown the presence of tannins and carotenoids in these extracts, suggesting an antioxidant activity. The 2-deoxyribose degradation assay was employed using the Fenton system (0.05 mM Fe(II), 0.1 mM H<sub>2</sub>O<sub>2</sub>) to generate free radicals in 10 mM Hepes (pH 7.2). When varying the concentration of alcoholic extracts (0.05 to 0.40 mg/mL; alcoholic extracts were dried and re-suspended in water) in the ability to quench 2-deoxyribose damage it is observed  $t_{50}$  values of about 0.25 mg/mL both flower and leaves extracts. When increasing iron concentrations (0.025 to 0.2 mM) in the 2-DR damage it is observed that above 0.5 mM Fe(II) there is a decreasing antioxidant efficiency by nasturtium extracts (flowers: from 62 to 36% protection; leaves: from 50 to 32% protection). This result suggests a relevant iron chelating component of the antioxidant activity of nasturtium extracts. The observed antioxidant efficiency of flower and leaves extracts is comparable with similar plants. **Acknowledgments:** Milênio-Redoxoma and CNPq. **Keywords:** Antioxidant; Free radicals; Nasturtium.