

LECTIN FROM SEEDS OF *Dioclea rostrata* (Dros) INDUCES *in vivo* AND *in vitro* NEUTROPHIL MIGRATION

Figueiredo, J.G.¹; Aguiar, C.N.²; Silvestre, P.P.²; Figueiredo, I.S.T.²; Benevides, R.G.¹; Moura, T.R.¹; Nascimento, K.S.¹; Vale, M.R.²; Alencar, N.M.A.²; Cavada, B.S.¹

Departamentos: ¹Bioquímica e Biologia Molecular; ²Fisiologia e Farmacologia. Universidade Federal do Ceará/UFC.

INTRODUCTION - Vegetal lectins have been used as tools in the study of inflammation due to their propertie of recognizing carbohydrate residues in inflammatory cell membranes by their lectin domines. **OBJECTIVE** - To study the pro-inflammatory activity of a lectin from seeds of D.rostrata (Dros). **METODOLOGY** - Two models were used: subcutaneous air-pouch in which is created an artificial subcutaneous cavity with macrophage preponderance, by injection of sterilized air (500 µg/pouch), and neutrophil chemotaxis *in vitro* by neutrophil suspension (10^6 cells/mL) placed in the upper wells of a 48-well modified Boyden chamber equipped with a Nucleopore polycarbonate filter (3 µm pore size). In the lower wells, RPMI or Dros (0.4, 15, 31 and 500µg/mL) were added. **RESULTS** - Dros stimulated neutrophil migration (8379 ± 709 neutrophils $\times 10^3$ /mL) in the air pouch, compared to control (657 ± 94). With doses of 15, 31 and 500µg/mL there was a neutrophil chemotaxy (9.4 ± 2.4 , 11.4 ± 2.7 and 17.2 ± 2.1 neutrophils/field, respectively) above the observed in control animals (3.6 ± 1.1). **CONCLUSIONS** – Dros exhibits a pro-inflammatory activity in the present models but other models must be tested in order to establish its mechanisms of action. **ACKNOWLEDGMENTS**: FUNCAP/CNPq. **KEYWORDS**: *Dioclea rostrata*, lectin, inflammation.