



## 25 SOY PROTEIN MODULATES THE EFFECTS OF INTOXICATION WITH CADMIUM IN RAT MAMMARY GLAND

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We studied the effects of different diets at molecular, biochemical and cellular levels on rat mammary gland (MG). We looked at the potential protective outcome of those diets under exposure to Cadmium (Cd), which is an important environmental contaminant. For this purpose, 4 female lots Wistar rats were used: 2 lots received casein and 2 lots soybean (Soy) as protein source. Within each group, 1 lot received regular water (control) and the other, 15 ppm of Cd in the drinking water for 60 days (6 animal in each experimental condition, 3 independent experiments). Lipids were extracted and total cholesterol, phospholipids and fatty acids were determined by colorimetric assay, thin-layer chromatography and gas chromatography-mass spectrometry, respectively. HMG CoA Reductase (HMGCoAR) and NFκB activation were determined by Western blot. The inflammation marker COX2 and Bax/Bcl2 were measured by PCR. MGs were subjected to hematoxylin-eosin stain. Our results show that Cd alters the lipid profile of MG and these effects are modulated by Soy based diet. The expression of HMGCoAR is also affected by Cd and Soy, showing some synergism. On the other hand, both Cd and Soy activate NFκB and this effect is also accompanied by augmented expression of COX2 and apoptosis according to the Bax/Bcl2 relation. Also Cd and Soy stimulate the development but Soy decreases the fat pad. The double treatment causes fibrosis and lost functionality. In summary, Cd affects the physiology and development of rat MGs and Soy diet may modulates the facts of Cd exposure in this tissue.

## 26 SYSTEMIC ACTIVITY OF *Prosopis strombulifera* ON B16F0 HOMOGRAFT MELANOMA TUMORS

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*Prosopis strombulifera* (Lam.) Benth. (PS) is a native plant from Mendoza – Argentina used for ethnopharmacological purposes. Recently, our group described its cytotoxicity on human tumoral cell lines, discarded its acute and subchronic toxic effects in healthy animals, and demonstrated its antitumoral properties on mice induced colorectal carcinomas. Despite the mentioned evidence, systemic efficiency of PS to control remote tumors remains unstudied. Therefore, the goal of the present work is to evidence the bioavailability of the plant active constituents and confirm its capability to act as antitumor agents. By the use of the leaves aqueous extract, activity of PS on B16F0 murine melanoma cell line was assayed *in vitro* to confirm its actions on mitochondrial metabolism, proliferation and cell viability. Then, homograft subcutaneous melanoma tumors were induced by cell inoculation in a control and treated group (n=5, each); PS was administrated at doses of 150mg/animal/day, PO. Assay endpoint was determined when the tumor volume reaches 1cm<sup>3</sup>. Thereafter, animals were sacrificed by decapitation; melanomas were dissected, weighted and histologically processed. Speed of tumor growth was significantly reduced when PS was a treatment (Student's T test, p=0.04). Microscopically, treated tumors showed changes in vascularization, presence of hemorrhagic and necrosis focus and cellular features compatible with cytostasis and apoptosis. If well, further studies need to elucidate chemical characteristics of bioavailable compounds and its cellular mechanisms of action; in accordance to the presented data, it is possible to support the PS aqueous extract as a natural compound valuable in the oncology field of research.

## 27 GASTRIC CYTOPROTECTIVE ACTIVITY OF *Ligaria cuneifolia* IN RATS

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*Ligaria cuneifolia* (Ruiz & Pav.) Thiegh. (Loranthaceae) is a widespread hemiparasitic plant in the Argentine Republic and it is employed in folk medicine. The aim of this study was to evaluate the anti-ulcerogenic effect in rats, and role of sulfhydryl groups, seem to play a mechanistic role in gastroprotection. The infusion of *L. cuneifolia* 10% was prepared according to Argentinean