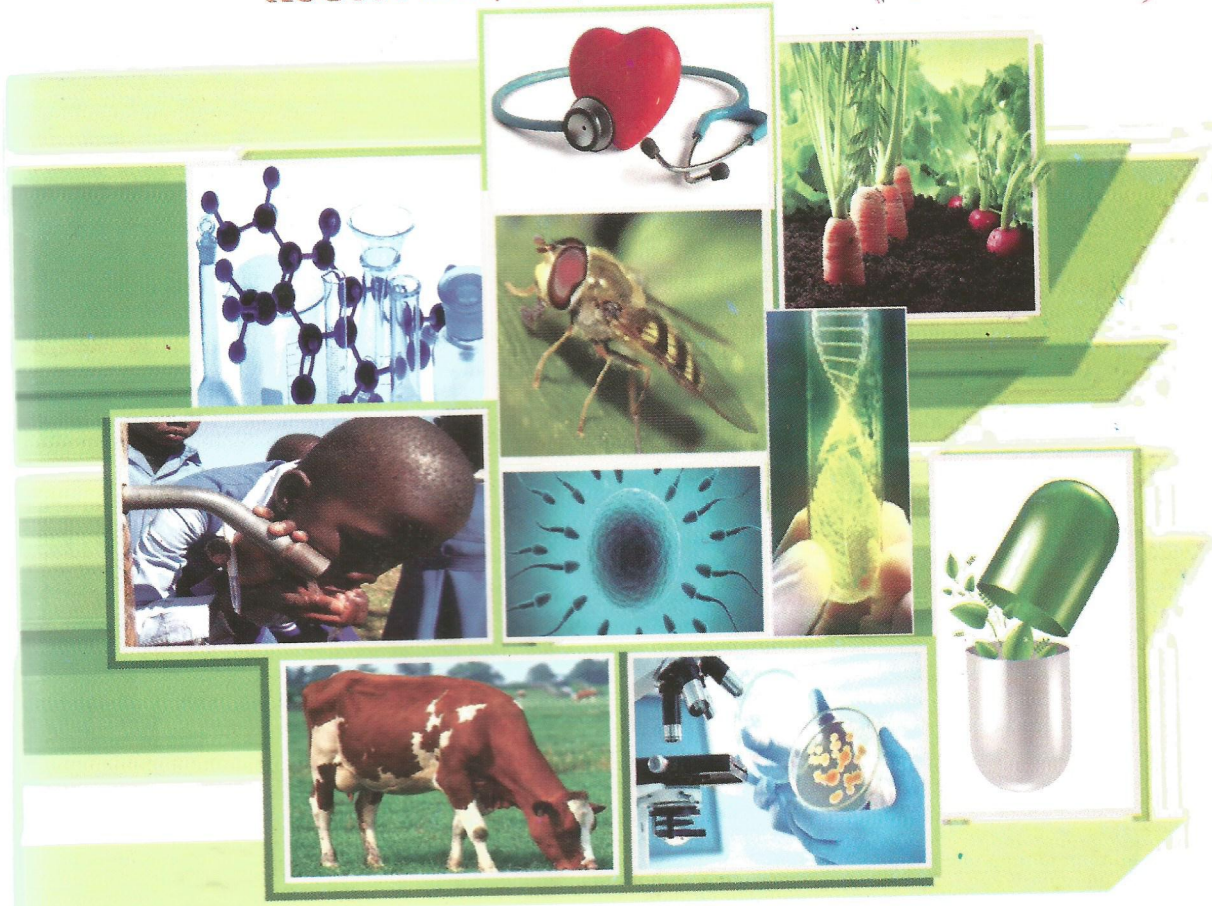


# JSV 2016

## 5<sup>TH</sup> LIFE SCIENCES CONFERENCE

AUGUST 04-06, 2016, University of Dschang-Cameroon



### PROGRAMME & ABSTRACTS

Theme:  
**ENVIRONMENTALLY FRIENDLY TECHNOLOGIES:  
CHALLENGES FOR ADAPTATIONS  
AND SUSTAINABLE DEVELOPMENT**



UNIVERSITE DE DSCHANG

**CAFOBIOS**

Cameroon Forum for  
Biological Sciences

PC 54

**Titre: Effect of aqueous extract of *Dichrocephala integrifolia* (Asteraceae) on Scopolamine induce amnesia**

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This study was undertaken in order to evaluate the effect of *Dichrocephala integrifolia* against scopolamine induce amnesia in swiss mice. The treatments saline (10 ml/kg), DI (35; 87.5; 175 and 350 mg/ Kg), or Tacrine (10 mg/kg) were administered alone or with scopolamine hydrobromide (1 mg/kg, i.p.) for 10 days. Behavioral tests used to evaluate the effects of treatments were: the Y-maze and the Morris Water Maze (MWM). To delineate the mechanism by which DI exerts its nootropic activity, the effect of DI on whole brain acetylcholinesterase (AChE) activity and Malondialdehyde (MDA) levels was also assessed. DI 87.5 and 350 mg/kg significantly ( $p < 0.001$ ) improved spatial short-term and long-term memory impairment induced by scopolamine, by increasing the percentage of spontaneous alternation in the Y maze and reducing the escape latency in the MWM. DI 87.5 and 350 mg/kg inhibited AChE activity and reduced the level of brain MDA. Moreover, DI and Tacrine showed the comparable efficacy in both neurobehavioral and cholinergic evaluation. The main finding of this work is that the aqueous extract of DI at the dose of 87.5 mg/kg improves learning capacities and counteracts the memory impairment induced by scopolamine. Thus DI can be a promising agent for the management of AD and dementia.

**Mots clés:** *Dichrocephala integrifolia*; Alzheimer's disease; Scopolamine; Acetylcholinesterase inhibitor

PC 55

**Effets anthelminthiques in vivo de la poudre de feuilles de *Mitragyna inermis* sur *Haemonchus contortus* chez trois types génétiques de moutons élevés au Bénin.**

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Les effets anthelminthiques de la poudre de feuilles de *M. inermis* ont été évalués in vivo sur *Haemonchus contortus*, le parasite hématophage de l'abomasum chez trois types génétiques de moutons âgés de 3 à 4 mois. La dose de 3,2 g/kg de poids vif a été administrée par voie orale pendant trois jours consécutifs renouvelée une semaine après. Le taux de réduction de l'excrétion fécale est respectivement passé, entre les deux traitements et une semaine après le deuxième traitement de 56,99% à 78,75% chez les ovins Djallonké, de 38,39% à 66,39% chez les ovins sahéaliens et de 35,55% à 63,11% chez les ovins métis. La poudre de feuilles de *M. inermis* à la dose de 3,2 g/kg de poids vif a significativement ( $p < 0,05$ ) réduit l'excrétion des œufs de *H. contortus*

indépendamment du type génétique d'ovins. Au bilan parasitaire, *M. inermis* s'est montrée efficace sur la viabilité des vers adultes de *H. contortus* avec une sensibilité au traitement beaucoup plus notable chez les Djallonké et les métis. La poudre de *M. inermis* a aussi réduit de façon significative ( $p < 0,05$ ) le nombre d'œufs par ver femelle avec un effet plus remarquable chez les ovins sahéliers. Ces différents résultats montrent que *M. inermis* peut être une alternative à la gestion du parasitisme gastro-intestinal chez les ruminants en général.

**Mots clés:** *Haemonchus contortus*, *Mitragyna inermis*, ovins Djallonké, ovins sahéliers, ovins métis

## PC 56

### In vitro comparative antioxydant effects of aqueous and methanolic extracts from the leaves of *Emilia coccinea* (Asteracea)

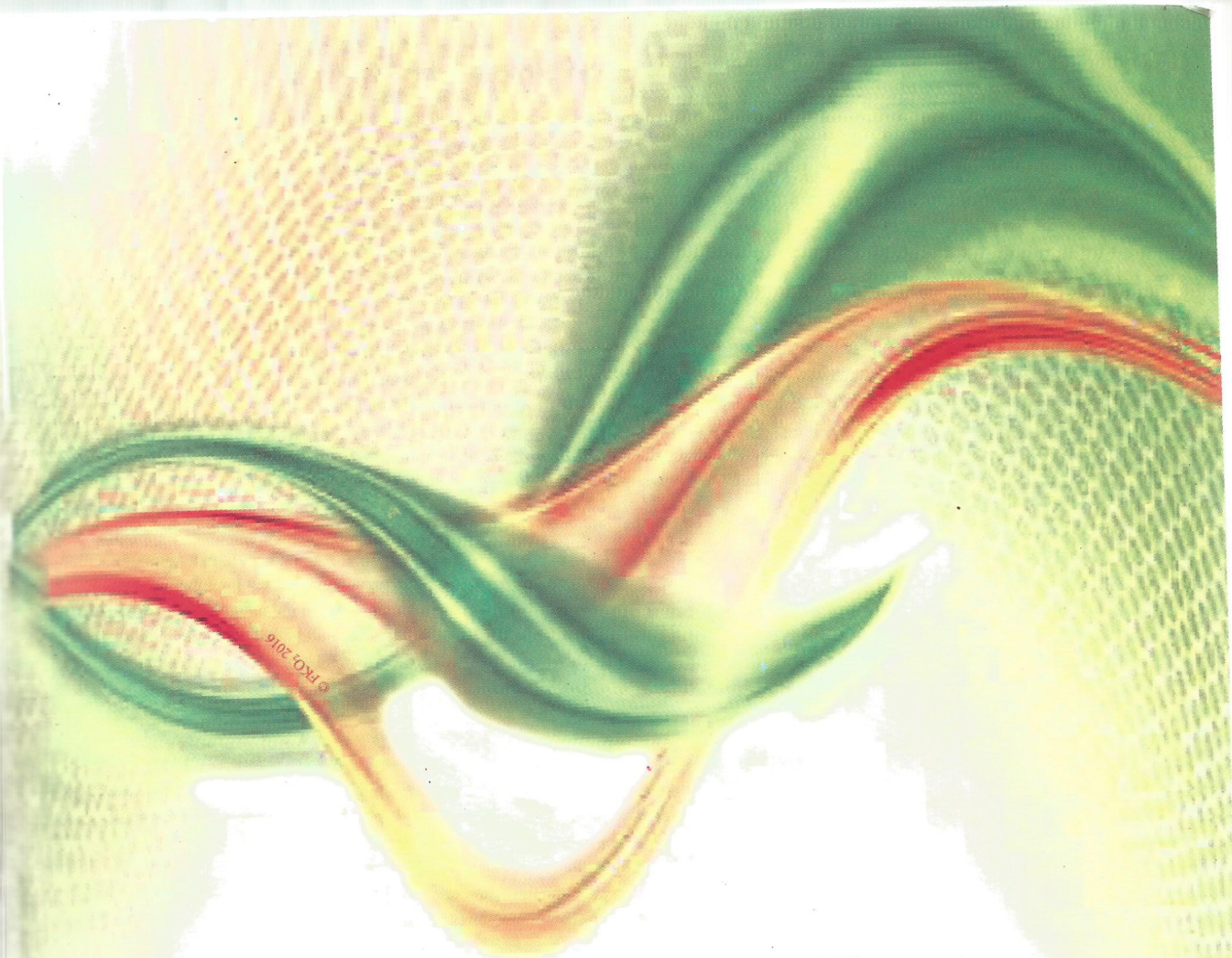
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**Background:** Oxidative stress is status in which there is an imbalance between endogenous antioxidant and pro-oxidant in favors of the latest. This status has been implicated in the pathophysiology of various diseases including arterial hypertension, diabetes mellitus, cancer and neurodegenerative diseases. Thus the use of antioxidants as adjuvants may potentiate the effect of existing drugs. *Emilia coccinea* (Asteraceae) is a plant used in Cameroonian folk medicine to treat arterial hypertension, gastrointestinal and infectious diseases that implicate oxidative stress. **Aim:** The present study sought to evaluate the comparative antioxidant effects of 3 extracts from the leaves of *E. coccinea*. **Methods:** In vitro antioxidant tests were carried out using DPPH (2, 2-diphenyl-1-picrylhydrazyl) and nitropruside induced nitric oxide production. Aqueous (maceration and decoction) and methanol extracts were used at ranged concentrations of 1, 3, 10, 30, 100 and 300 µg/mL. Ascorbic acid was used as reference antioxidant drug. The total phenolic and flavonoid content of *E. coccinea* extracts were also determined. **Results:** The water maceration, decoction and methanol extracts exhibited a concentration dependent radical scavenging effect in DPPH test with respective  $E_{max}$  of 81, 60 and 42% inhibition. All the tested extracts significantly increased the production of nitric oxide from sodium nitropruside. The methanol extract was the most active. The total-phenolic and flavonoids were significantly more abundant in the methanol extract compared to the aqueous extracts. **Conclusion:** Extracts from the leaves of *E. coccinea* possess in vitro antioxidant effects that may contribute to their pharmacological properties.

**Keywords :** *Emilia coccinea*, antioxydant, flavonoïdes, polyphenols



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