



International Society for  
**Ethnopharmacology**

**BOOK OF ABSTRACTS**

# 13th Congress of the International Society for Ethnopharmacology

in collaboration with the

**Society for Medicinal Plant and  
Natural Product Research**

and

**Eurasia-Pacific Uninet**

**Graz, Austria  
September 2 - 6, 2012**



Das Land  
Steiermark

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P111	<b>Variation of cytotoxic lignans accumulation in different organs of <i>Linum persicum</i></b>	91
	<i>Mina Esfandiari, M Sharifi, M Yousefzadi, A Jafari</i>	
P112	<b>Ethnobotanical survey of antimalarial plants in four provinces of Iran and antiplasmodial activities of selected one</b>	91
	<i>Somayeh Esmaeili, Farzaneh Naghibi, Atefeh Pirani, Zahra Tavakoli, Mahmoud Mosaddegh</i>	
P113	<b>Hepatoprotective activity of <i>Paeonia officinalis</i> Linn. roots against carbon tetrachloride (CCl<sub>4</sub>) induced hepatocellular injury in rats</b>	92
	<i>Feroz Ahmad, Nahida Tabassum</i>	
P114	<b>A Preliminary Investigation into non-Camellia Teas in China</b>	92
	<i>Lijia XU, Wei XIAO, Yong PENG, Chunnian HE, Peigen XIAO</i>	
P115	<b>Effects of Ulmi Pumilae Cortex on contact dermatitis induced by Dinitrofluorobenzene in mice</b>	93
	<i>Hyungwoo Kim, M Kim, H Kim, S Cho</i>	
P116	<b><i>Trichosanthes dioica</i> as potent anti-hyperglycemic plant</b>	93
	<i>Chetna Kharbanda, Y Ali</i>	
P117	<b>Influence of fenugreek seed and cinnamon bark extracts on body weight, blood glucose and lipid profile in diabetic rats</b>	94
	<i>Najiv Laqi, RM AL-Hammali</i>	
P118	<b><i>Tuberaria lignosa</i> preparations: influence of drying methods and oral dosage forms on antioxidant properties and phytochemical composition</b>	94
	<i>Ana Maria Carvalho, José Pinela, Lillian Barros, Montserrat Dueñas, Celestino Santos-Buelga, Isabel C.F.R. Ferreira</i>	
P119	<b>Antifungal Evaluation of <i>Equisetum</i> sp. from Turkey</b>	95
	<i>Tuğba Günbatan, İlhan Gürbüz, Gökalp İşcan, Kıymet Güven, Yasemin Öz, Fatih Demirci</i>	

### Influence of fenugreek seed and cinnamon bark extracts on body weight, blood glucose and lipid profile in diabetic rats

*Laili NM, AL-Hammali, RM*

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This study was conducted to investigate the effects of *Cinnamomum zeylanicum* bark and *Trigonella foenum-graecum* seeds aqueous extracts on body weight, blood glucose and lipid profile. Forty tow male rats, distributed into 6 groups of 7 rats each. One group(1) was kept as normal control, while rats of the other five groups were rendered diabetic by intraperitoneal injection of alloxan monohydrate in a dose of 150 mg/kg b.w., as a single dose. Group (2) was left as diabetic control, while rats of groups (3) and (4) were given orally fenugreek extract at 0.8 and 1.8 mg/100 mg b.w., respectively, daily for 42 days. Rats of groups (5) and (6) were given orally cinnamon extract at doses of 100 and 300 mg/100 g b.w. for the same period. Serum was collected for metabolic analysis. Data were analyzed using SPSS. The results indicated that, in the diabetic state animals have significantly ( $P < 0.05$ ) lower body weight and significantly ( $P < 0.05$ ) high plasma concentrations of serum glucose, TC, TG, LDL-C and low HDL-C compared to controls. Oral administration of *Trigonella foenum-graecum* extract and *Cinnamomum zeylanicum* extract to diabetic rats for 6 weeks improved body weight and decreased blood HDL-C and glucose while increased triglycerides and total cholesterol compared with controls. Higher doses in both extracts have effective results than lower ones and cinnamon has more potent results compared to fenugreek seed extract. In conclusion, fenugreek seed and cinnamon bark powders may have hypoglycemic and antihyperlipidemic effects.

### *Tuberaria lignosa* preparations: influence of drying methods and oral dosage forms on antioxidant properties and phytochemical composition

*Pinela J<sup>1</sup>, Barros L<sup>1,2</sup>, Dueñas M<sup>2</sup>, Carvalho AM<sup>1</sup>, Santos-Buelga C<sup>2</sup>, Ferreira ICFR<sup>1</sup>*

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Many herbal beverages used in folk medicine have pharmacological properties connected with the presence of antioxidants such as phenolic compounds. *Tuberaria lignosa* (Sweet) Samp. (Cistaceae) is one of the most popular medicinal plants in several regions of the Iberian Peninsula used to prepare herbal infusions or decoctions. In the present work, the effects of drying (freeze or shade-drying) and preparation methods (water infusion or decoction) on the antioxidant activity and phytochemical composition of wild and commercial samples of *Tuberaria lignosa* were evaluated. Infusion of the freeze-dried wild sample led to the highest levels of sugars, while infusion of shade-dried wild sample and decoction of the freeze-dried sample retained the highest ascorbic acid and phenolic compounds levels. These two samples revealed the highest antioxidant activity, even higher, in some cases, than trolox. Decoctions had lower amounts of disaccharides than infusions, which seemed to be hydrolyzed increasing the content in monosaccharides. Commercial samples showed much lower contents in phenolic compounds, mainly in ellagitannins and flavonoids, as also the lowest antioxidant activity. Data give scientific evidence to folk medicinal uses of *Tuberaria lignosa*, highlighting the interest of its decoctions and infusions as sources of bioactive compounds (e.g. phenolic compounds and ascorbic acid).

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**Assunto:** ISE 13 - accepted for poster presentation

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Graz, May 25, 2012

Dear Ana Maria Carvalho,

thank you very much for your interest to attend the 13<sup>th</sup> International Congress of the Society for Ethnopharmacology which will take place from 2 - 6 September, 2012 at the University of Graz, Austria, and for your abstract submission.

The Scientific Committee has reviewed your abstract and we are happy to inform you, that your submission "**Tuberaria lignosa preparations: influence of drying methods and oral dosage forms on antioxidant properties and phytochemical composition**" has been accepted for **poster presentation**. Detailed instructions about your presentation will follow.

To take part in the scientific program, you will need to complete your registration process before the **31st of May, 2012**. Failure to do this will result in withdrawal from the scientific program. (Please do not take this notice into consideration if you have already registered).

You can register at <http://ise13.uni-graz.at>

Please also find all further information on travelling, accommodation, etc. at our congress web-site. Early hotel booking is recommended since there is limited capacity.

We are looking forward seeing you at ISE13 in Graz.

Best regards,

For The Organizing Committee  
of ISE13 Graz

Univ.-Prof. Dr. Rudolf Bauer  
Chairman ISE13



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