

# 2013

## **Book of Abstracts of the 1st International Symposium on Profiling**

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**Book of Abstracts of the 1<sup>st</sup> International  
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ISPROF 2013 - 1st**

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### **S13. Phenolic composition and hepatotoxicity assessment of *Cytisus striatus* (Hill) Rothm. infusion**

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#### **Abstract**

*Cytisus striatus* (Hill) Rothm. is a species from the Tribe Genisteae (Fam. Fabaceae, subFam. Faboideae) commonly encountered in the Portuguese wild flora. In several regions of Portugal, this Fabaceae is used for medicinal purposes as it is considered to have anti-inflammatory properties (Carvalho, 2010). Some antioxidants were found in this plant, including tocopherols (Pinela et al., 2011) and ascorbic acid (Pereira et al., 2013), that could be related to the mentioned properties. Nevertheless, their composition in other important antioxidants such as phenolic compounds remains unknown. It should be pointed out that folk medicine recommends specific dosages and controls the periods of intake to avoid some risks empirically associated to oral dosage forms of this plant. Therefore, the aim of the present work was to determine the phenolic composition of *Cytisus striatus* infusion and to evaluate its hepatotoxicity. The analysis of phenolic compounds was carried out by reversed-phase HPLC-DAD and the major phenolic compounds were identified by ESI-MS. The hepatotoxicity was assessed by sulphorhodamine B assay using a porcine liver primary culture (PLP-2) established by us.

The main phenolic compounds found in the infusion were *p*-coumaroyl acid, luteolin and apigenin derivatives and chrysin, being this last one the most abundant compound. The sample did not reveal toxicity for non-tumour cells. These results give scientific and technical support to the traditional use of this plant in folk medicine, highlighting this species as a source of bioactive compounds, such as phenolic compounds, that could be incorporated in functional beverages or other formulations.

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