# Phlomis lychnitis L. (Lamiaceae) as a source of bioactive compounds with functional properties



## Francisco Les, Guillermo Cásedas and Víctor López

Department of Pharmacy, Faculty of Health Science, Universidad San Jorge, Zaragoza

#### **INTRODUCTION:**

*Phlomis lychnitis* L. (Lamiaceae) is a shrub found in the Iberian Peninsula and in other Mediterranean countries. *P. lychnitis*, also known as "candilera" in Spain, has been used in traditional medicine to treat illnesses such as colds and gastrointestinal problems. Due to the presence of different metabolites in the composition of this plant, it could be a source of bioactive principles for the development of possible new treatments.

#### **OBJECTIVE:**

To determine the bioactive properties (total polyphenols, antioxidant properties and capacity to inhibit digestive enzymes) of a methanolic extract of *P. lychnitis* L.

### **MATERIAL & METHODS:**

Reducing capacity: Antioxidant Screening: Enzymatic inhibition *Screening*: Total Polyphenols → Folin-→ DPPH radical scavenging → Lipase  $\rightarrow \alpha$ -Glucosidase It does not Ciocalteu method → Superoxide radical scavenging → Xanthine oxidase inhibit lipase P. lychnitis The extract contains P. lychnitis Ascorbic acid  $75,4 \pm 18,4 \mu g GAE$ 25equivalents /mg extract. Log C (mg/mL) Log C (mg/mL) OH 100-OH OH Superoxide HO. P. lychnitis 50-P. lychnitis Gallic acid Acarbose 25-Log C (mg/mL) Log C (mg/mL) HÓ **CONCLUSION:** Verbascoside HO The extract showed antioxidant-reducing capacity with ability to HO

The extract showed antioxidant-reducing capacity with ability to inhibit the  $\alpha$ -glucosidase and xanthine oxidase enzymes



Maceration in methanol

and subsequent rotary

evaporation