

Campana PR, Mansur DS, Gusman GS, Ferreira D, Teixeira MM, Braga FC. (2015). Anti-TNF- α Activity of Brazilian Medicinal Plants and Compounds from *Ouratea semiserrata*. *Phytother Res.* 29(10):1509-15.

Several plant species are used in Brazil to treat inflammatory diseases and associated conditions. TNF- α plays a pivotal role on inflammation, and several plant extracts have been assayed against this target, both in vitro and in vivo. The effect of 11 Brazilian medicinal plants on TNF- α release by LPS-activated THP-1 cells was evaluated. The plant materials were percolated with different solvents to afford 15 crude extracts, whose effect on TNF- α release was determined by ELISA. Among the evaluated extracts, only *Jacaranda caroba* (Bignoniaceae) presented strong toxicity to THP-1 cells. Considering the 14 non-toxic extracts, TNF- α release was significantly reduced by seven of them (inhibition > 80%), originating from six plants, namely *Cuphea carthagenensis* (Lythraceae), *Echinodorus grandiflorus* (Alismataceae), *Mansoa hirsuta* (Bignoniaceae), *Ouratea semiserrata* (Ochnaceae), *Ouratea spectabilis* and *Remijia ferruginea* (Rubiaceae). The ethanol extract from *O. semiserrata* leaves was fractionated over Sephadex LH-20 and RP-HPLC to give three compounds previously reported for the species, along with agathisflavone and epicatechin, here described for the first time in the plant. Epicatechin and lanceolide A elicited significant inhibition of TNF- α release, indicating that they may account for the effect produced by *O. semiserrata* crude extract.