Abstract of Presentation

Note: This paper should be typed in "Times New Roman" of 12pt.

Presentation Title(Should be no more than 20 words):

Functional Properties of Maté (*Ilex paraguariensis*)

Abstract :

Ilex paraguariensis St. Hil. (Aquifoliaceae) (maté), is a native species from South America, growing naturally in North-Eastern Argentina, South-Eastern Brazil, Eastern Paraguay and Uruguay. This species is only cultivated in the first three countries, in wild environments. The dried and ground leaves are industrialized to obtain the commercial product known as "yerba mate" which is used as a folk beverage (infusions and decoctions) that is consumed by 30% of the population at a rate of 1 L/day. The main traditional effects of maté include: stimulant, diuretic, antioxidant, antiulcerous, choleretic, antirheumatic, analgesic, glycogenolytic, lipolytic, weight reducing, etc.

A growing interest in this product has been observed in countries where maté beverages have not been traditionally consumed. Nowadays, it is exported to United States, Europe and Asia where it is sold as vegetal drug or as extracts in different medicinal preparations or as ingredients in functional foods. Maté is known to contain vitamins, minerals, purine alkaloids, saponins and polyphenols (caffeoyl derivatives and flavonoids). A growing number of studies have attributed the functional properties of "yerba mate" to the bioactive compounds present in this species.

Additionally, several other co-generic species growing in the same habitat have been historically used to substitute and/or to adulterate genuine *I. paraguariensis.* These species are: *I. argentina, I. brasiliensis, I. brevicuspis, I. dumosa* and *I. theezans,* among others.

This presentation describes the results of our studies about the phytochemistry and bioactivity of extracts of "yerba mate". To this end, both *in vitro* and *in vivo* experiments have been conducted. Comparative results between "yerba mate" and the main substitutes or adulterants are also presented. Promising areas of research related to the high polyphenols content, the possibility of developing new products with functional properties and the potential use of "maté" and some of its related co-generic species as sources of biologically active compounds are highlighted.

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