



BOOK OF ABSTRACTS

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PECTIC POLYSACCHARIDES FROM THE INFUSIONS OF *P. TRIDENTATUM*, *F. ANGUSTIFOLIA* AND *M. SUAVEOLENS*: STRUCTURAL CHARACTERIZATION AND INFLAMMATORY INFLUENCE EVALUATION

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In Trás-os-Montes region (Portugal), the small shrub (*Pterospartum tridentatum*), the narrow-leaved ash (*Fraxinus angustifolia*), and the apple mint (*Mentha suaveolens*) are vegetable species frequently used in the preparation of infusions for medicinal purposes. According to the popular tradition, the infusions prepared from *P. tridentatum*, *F. angustifolia* and *M. suaveolens* protect against diabetes, hypertension, high levels of cholesterol and uric acid [1].

Infusions from the flowers of *P. tridentatum*, leaves of *F. angustifolia*, and aerial parts of *M. suaveolens* were prepared and the high molecular weight material obtained was fractionated by ethanol precipitation. Sugar and glycosidic linkage analysis suggested the presence of pectic polysaccharides comprising distinct proportions of rhamnogalacturonan and homogalacturonan domains. Preliminary results suggested that the isolated pectic polysaccharides could modulate the inflammatory process. Pectic polysaccharides are known not only as the main structural components of plant cell walls but also as exhibiting anti-inflammatory activity [2], which can be extremely valuable in the treatment of numerous clinical disorders with a strong inflammatory component, such as diabetes and hypertension, among others. Several studies suggested that the linear region, mainly composed by galacturonic acid residues, played a significant contribution in the anti-inflammatory activity displayed [2, 3]. Anti-inflammatory assays are being conducted in order to establish a structure-activity relationship for the polysaccharides isolated from *P. tridentatum*, *F. angustifolia* and *M. suaveolens* infusions.

References

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