

## POTENTIAL APPLICATION OF POLYSACCHARIDE FROM *ANACARDIUM OCCIDENTALE* L. IN THE PHARMACEUTICAL AND COSMETIC INDUSTRIES

Pessoa, M.S.<sup>1</sup>, Souza, B.W.S.<sup>3</sup>, Cerqueira, M.A.<sup>3</sup>, Correia, M.T.S.<sup>1</sup>, Carneiro-Leão, A.M.A.<sup>4,2</sup>, Porto, A.L.F.<sup>4,2</sup>, Teixeira, J.A.<sup>3</sup>, Vicente, A.A.<sup>3</sup>, Carneiro-da-Cunha, M.G.<sup>1,2</sup>

<sup>1</sup>Departamento de Bioquímica, CCB, Universidade Federal de Pernambuco, Pernambuco, Brasil, <sup>2</sup>Laboratório de Imunopatologia Keizo Asami (LIKA/UFPE), Pernambuco, Brasil, <sup>3</sup>IBB, CEB, Universidade do Minho, Braga, Portugal, <sup>4</sup>Departamento de Morfologia e Fisiologia Animal – Universidade Federal Rural de Pernambuco, Pernambuco, Brasil  
amanjos2001@yahoo.com.br

The ramified heteropolysaccharide from *Anacardium occidentale* L (cashew-tree) gum (an acid arabinogalactan) – POLICAJU – has been shown to present comparable viscosity to the arabic gum. This opens multiple possibilities to be used in pharmaceutical, cosmetic and food industries. It has also been reported as a potential constituent of films and thickening agent in addition to its confirmed anti-tumour, anti-parasitic and cicatrizing effect. This work aimed at evaluating the applicability of POLICAJU in human skin as cutaneous dressing. This was performed by determining the wetting capacity of POLICAJU, measured by the spreading coefficient ( $W_s$ ), the work of adhesion ( $W_a$ ) and work of cohesion ( $W_c$ ) in human skin. The best solution (with a higher  $W_s$ ) was 3.0% (w/v) of POLICAJU, 0.4% of sorbitol and 0.2% of Tween 80. Analogous results (statistically equal) were obtained for a similar solution where POLICAJU was included at 1.5% (w/v). Results have shown that it is possible to apply a solution of POLICAJU on human skins, confirming a promising potential to be applied in pharmaceutical and cosmetic industries.

Keywords: POLICAJU, wetting capacity, human skin, cutaneous dressing.

Acknowledgements: CNPq/PIBIC/UFPE, ALFA/VALNATURA, FCT, FACEPE.