



## Biological Activities of *Arrabidaea chica* (Bonpl.) B. Verl. Leaves

Raquel R. do AMARAL <sup>1,4</sup>, Amanda A.D. SANTOS <sup>2</sup>, Amarillis SARAIVA <sup>3</sup>, Gisele BOTAS <sup>4</sup>,  
Rodrigo A. S. CRUZ <sup>4</sup>, Caio P. FERNANDES <sup>4</sup>, Leandro ROCHA <sup>1,4\*</sup> & Fábio BOYLAN <sup>5</sup>

<sup>1</sup> *Programa de Pós Graduação em Biotecnologia Vegetal (PBV), Universidade Federal do Rio de Janeiro, Av. Brigadeiro Trompowski s/n, Ilha do Fundão, 21941-972, RJ, Brazil*

<sup>2</sup> *Faculdade de Farmácia, Universidade Federal do Rio de Janeiro, Av. Brigadeiro Trompowski s/n, Ilha do Fundão, 21941-972, RJ, Brazil.*

<sup>3</sup> *Facultad de Ciencias Químicas y Farmacia, Universidad de San Carlos de Guatemala, Zona 12 01002, Guatemala C.A.*

<sup>4</sup> *Laboratório de Tecnologia de Produtos Naturais, Faculdade de Farmácia, Universidade Federal Fluminense, R. Mário Viana 523, Santa Rosa, Niterói, 24241-000, RJ, Brazil*

<sup>5</sup> *School of Pharmacy and Pharmaceutical Sciences, Trinity College Dublin, Dublin, Ireland*

**SUMMARY.** Leaves of *Arrabidaea chica* (Bonpl.) B. Verl., Bignoniaceae, are commonly used in the Amazon region as anti-inflammatory, antimicrobial, astringent and as a wound healing agent. In the Southeast Region of Brazil, this species is used for urinary infection treatment. Ethanol extract from leaves of *Arrabidaea chica* and its fractions were prepared and tested for antioxidant, cytotoxic, antibacterial and diuretic activities. All samples, with the exception of the hexane fraction, showed a potential antioxidant activity. Hexane, ethyl acetate fraction and luteolin, a flavone isolated from dichlorometane fraction, demonstrated diuretic activity. None of the samples assayed showed cytotoxicity or antimicrobial activity. Therefore, our results suggest that folk use to treat urinary tract infections may be modulated by the diuretic activity found, since increase of water diuresis serves to 'flush out' the urinary tract of infecting organisms. This could reduce bacterial multiplication in the bladder.

**KEY WORDS:** Antimicrobial activity, Antioxidant activity, *Arrabidaea chica*, *Artemia salina*, Cytotoxic activity, diuretic activity.

\* Author to whom correspondence should be addresses. *E-mail:* lean@vm.uff.br