

## DERMASEPTINS AND PHYLLOSEPTINS OF *PHYLLOMEDUSA* (HYLIDAE) SECRETION

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Skin secretions obtained from tree-frogs of the *Phyllomedusa* genus (Hylidae) represent a well-known source of a number of antimicrobial peptides, such as dermaseptins and phylloseptins. An important feature of some of these peptides is their ability to discriminate between mammalian and microbial cells, showing, therefore, little hemolytic activity. In this study we present peptides identified in the secretion of *Phyllomedusa burmeisteri*, *Phyllomedusa rohdei*, and *Phyllomedusa tomopterna*. The lyophilized extract was obtained from the skin by mild electric shock stimulation and then purified to homogeneity by RP-HPLC semi-preparative and analytical C18 columns. Peptides molecular masses and primary structures were determined using a MALDI TOF/TOF mass spectrometer. These peptides eluted between 40% and 70% linear gradient of acetonitrile and consisted of 19-33 amino acids with conservative motifs containing hydrophobic and positive charged residues. To date, 6 dermaseptins and 8 phylloseptins have already been *de novo* sequenced. Considering the primary structures of these molecules and their high homology with previously described dermaseptins and phylloseptins they probably present some antimicrobial activity. Our current efforts are focused on the comparative examination of the effects of such peptides against pathogenic microorganisms. Supported by: EMBRAPA Recursos Genéticos e Biotecnologia.