

## **BIOLOGICAL EFFECT-DRIVEN BIOCHEMICAL ASSESSMENT OF THE SKIN SECRETION OF *PHYLLOMEDUSA HYPOCHONDRIALIS***

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Given the diversity of compounds known from frog skin, our work focus on the depiction of the main physiopathological events and the pattern of the local acute inflammatory response targeted by the skin secretion in mammals as well as the identification of novel bioactive peptides present in *P. hypochondrialis* skin secretion. The secretion induced several toxic effects in mice and inflammatory reaction characterized by the release of IL-1, IL-6, TNF-alpha, KC, MCP-1, LTB 4 and PGE(2). We also presented the isolation and characterization of two antimicrobial peptides; one novel bradykinin potentiating-peptide (BPP) and three bradykinin-like peptides. These antimicrobial peptides (PS7 and DPh1) were effective over pathogenic bacteria, presenting no hemolytic activity. The new BPP, named Phypo Xa is the first canonical BPP to be found not only in the frog skin but also in any other natural source other than the snake venoms. Also, is able to potentiate bradykinin activities *in vivo* and *in vitro*, competitively inhibit ACE and interact with the ACE testicular isoform. All these finds demonstrate the efficiency of the biological effect-driven biochemical and proteomic approach to the finding of new molecules.

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