ANTIMICROBIAL PEPTIDES IN TOXIN OF *NEPHILENGYS CRUENTATA* SPIDER

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Infectious diseases are one of the main causes of death in human population. For the most part, it is due to microorganisms resistant at different antibiotics. In this scope, the research of antimicrobial molecules in Brazilian fauna and flora could be precious. In arachnid toxins, mainly spider and scorpion, were identified some antimicrobial peptides. The objective of this study was to identify antimicrobial factors in venom of the spider *Nephilengys cruentata*. It is a common little spider that lives near lights of houses and gardens. The toxin was fractionated in two steps. First, using C18 Sep Pak column cartridge in three stepwise elutions, with 5, 40 and 80% acetonitrile (ACN) in trifluoroacetic acid (TFA) 0.05%. All the fractions were concentrated in a vacuum centrifuge, reconstituted in TFA 0.05% and loaded into a semi-preparative C18 Jupiter column using a linear gradient of ACN in TFA 0.05% for the second purification step. The column effluent was monitored by absorbance at 225 nm and the antimicrobial activity was determined by liquid growth inhibition assay (Silva Jr. *et al.,* JBC 2000). Several factors inhibited the growth of the bacteria *Micrococcus luteus* and *Escherichia coli* and the yeast *Candida albicans*. The purification and characterization of these antimicrobial factors are in progress.

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