

Antimicrobial activities of *Cantareus (Helix) aspersa* mucus

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Resistance to conventional antibiotics has become a serious medical and world health problem. Consequently, the development of novel antimicrobial agents that target multi resistant bacterial strains has become a pressing issue. Peptide antimicrobial agents from the natural world are exciting candidates as novel antibacterial agents due to them being hypoallergenic with a broad antimicrobial spectrum and highly selective toxicities. The land snail, *Cantareus (Helix) aspersa* has been used in medicine since antiquity for the treatment of dermatological disorders and appears to have effectiveness against a range of soil borne bacteria and papilloma viruses. However, the properties of snail mucus have never been characterised. This study seeks to obtain bioactive compounds (partially purified compounds) released from the foot muscle mucus using reverse phase high performance chromatography (RP-HPLC) and size exclusion chromatography (SEC) (i.e. C18 Sep pak and Ultrafuge 3kDa cutoff) and to test the activities of each compound against 4 strains of bacteria i.e. *Staphylococcus aureus*, *Staphylococcus epidermidis*, *Pseudomonas aeruginosa*, *Escherichia coli* at different time points and at different concentrations. The result shows that snails possess a cocktail of proteins that are secreted into mucus that are effective at inhibiting the growth of the skin-borne pathogens, *Staphylococcus epidermidis* and *Pseudomonas aeruginosa*. With the growing rise in drug resistant bacteria, it is hoped our studies can lead to the identification and deployment of new antibiotics.

Biography

Nantawan Soonklang her degree in BNS Ramathibodi Hospital, Mahidol University, Thailand and PhD from Mahidol University, Thailand. Her research interests are cell and molecular biology and Immunology. She has published many articles, also participated in national and international journals.

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