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Wasps venom new trend for treatment of cancer, microbial and pathogenic diseases

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Cancer is one of the main causes of death worldwide. For experts, epidemiological trends continue to be alarming given the increases in the rates of incidence and mortality. Nowadays, tumors are treated with radiotherapy, surgery and chemotherapy. The side effects derived from anti-tumor compounds are a result of their low specificity. On the other hand Parasitic and pathogenic diseases are relentlessly progressive, affected all living organisms. Wasp venom may deliver a painful sting, but scientists have carried out successful *in vitro* tests using the Wasps venom to kill cancer cells and antimicrobial diseases. Scientists designed a new therapy based on a peptide - the binding of several amino acids peptides from wasp venom for its potential use against breast cancer. This peptide has the ability to form pores in the cell plasma membrane, penetrate into the cell and finally, cause its death. Wasp Venom has long been used in traditional medicine. The active components of Wasp Venom found to exhibit interesting bioactivities, such as antimicrobial, anti-inflammatory and antioxidant activities as well as anti-tumors. In this respect, the present review for understanding of the mechanisms, mode of action and future prospects regarding the use of new drugs derived from wasp venom for treatment cancer, microbial and pathogenic diseases.

Biography

Mamdouh Nassar was born in Cairo. He graduated a Bachelor's Degree from Biology (zoology, botany, and toxicology) Department, Faculty of Science, Cairo University. received his MSc Degree in from the same University. PhD degree (channel system) between University of Maryland College Park (USA) and Cairo University. He had many studies for field of sleeping sickness and malaria diseases of vectors stomoxys calcitrans and anopheles in USA Florida, jazan and jeda. staff member program (visitor exchange), University of Maryland College Park, USA. He is a professor of biological sciences at Cairo University, King Abd-Alziz, University Jazan and King Khalid Universities. He was worked at laboratory staff, for dietary microbiology at environmental system service, Beltsville, USA.

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