

Scorpion sting might save lives from coronavirus

October 25 2021



Credit: AI-generated image ([disclaimer](#))

The potential of scorpion venoms to combat the threat of new variants of coronavirus is being explored by scientists from the University of Aberdeen and the University of Suez Canal, Egypt.

Scorpions are one of the oldest animals on Earth, having existed for

more than 400 million years. Their venoms have been used in traditional therapies since antiquity in many countries, particularly in China and India.

Scorpion venoms contain a "fascinating cocktail" of biologically active [peptides](#), many of which are very potent neurotoxins, while several have shown strong antibacterial and antiviral activities and are thought to play a role in protecting the venomous gland from microbial infection.

These peptides could serve as a good starting point to design novel anti-coronavirus drugs.

Collection of scorpion species were carried out under the tenets of the Convention on Biological Diversity and following the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization and the relevant legislations. After milking their venoms, scorpions were released into their natural habitats in the Egyptian Desert.

A venomous gland from each species was collected to analyze its [genetic material](#) which will reveal copious amounts of useful information on the [venom](#) peptide composition.

Scorpion venom is a very complex mixture containing hundreds of toxins and their analysis entails laborious experiments. After their purification and identification, venom peptides will be synthesized in higher quantities and structurally modified to confer drug-like properties using tailoring enzymes in the laboratory of Dr. Houssen.

Dr. Houssen said: "The study of scorpion venoms as a source of novel drugs is an exciting and productive area worthy of further investigation.

"We have already seen that these venoms contain extremely potent

bioactive peptides, and we believe that there are many more await discovery."

Professor Abdel-Rahman said: "Several [scorpion](#) species including the most toxic in the world are widespread in Egypt.

"Their venoms have not yet been fully studied and may represent an unorthodox source of new medicines."

Provided by University of Aberdeen

Citation: Scorpion sting might save lives from coronavirus (2021, October 25) retrieved 7 May 2024 from <https://medicalxpress.com/news/2021-10-scorpion-coronavirus.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.