

Brazil's banana spider aids erectile dysfunction treatment

September 28 2023, by Douglas MAGNO with Louis GENOT in Rio de Janeiro



The venom of the poisonous banana spider has led to the discovery of a molecule which will treat erectile dysfunction.

Three decades ago, Brazilian researchers began studying a curious side

effect from banana spider bites: the toxin left victims with priapism, a painful and persistent erection.

The scientists were inspired to develop a [synthetic molecule](#) using some properties of the spider's venom to create a gel to treat erectile dysfunction, which is now undergoing promising clinical trials.

Covered in thick brown hair, and with a maximum size of up to 15 centimeters (six inches), the arachnid is one of the most venomous in the world.

It is found in several South American countries, and was nicknamed for its common presence in [banana plantations](#), but it is also called the "wandering spider" or "armed spider."

In the southeastern Brazilian state of Minas Gerais, it is found in [rural areas](#) as well as urban centers.

At the Ezequiel Dias Foundation (FUNED), a medical research center in the state's capital Belo Horizonte, a biologist delicately grabs one of the spiders with a pair of tweezers and stimulates its fangs to get a few drops of venom.

FUNED then sends the venom to the Federal University of Minas Gerais (UFMG) which has been researching which component could be replicated to treat erectile dysfunction, which affects tens of millions of men around the world.



Scientist Marcia Helena Borges is on the team working to develop a medicine to treat erectile dysfunction, inspired by spider venom.

"The venom is only used to learn the properties of the molecule" which causes the priapism in bite victims, said Maria Elena de Lima, a UFMG researcher.

Brazilian biotech company Biozeus has bought the patent for the molecule.

The company wants to sell it in an ointment, which would be rubbed on the penis when required, resulting in an erection in a few minutes, said de Lima.

The molecule triggers the release of nitric oxide, which is essential for an erection as it increases [blood circulation](#) and allows blood vessels to widen.

De Lima said the research could be especially useful in the fight against cancer, as men suffering [prostate cancer](#) often refuse a procedure to remove the prostate because it can damage nerves and lead to erectile dysfunction.

After the first phase of [clinical trials](#) was approved by Brazil's Anvisa regulatory agency, the medication has now moved into the second of three phases prior to being approved for sale.

De Lima said the discovery of a potential [erectile dysfunction](#) treatment was a message "not to destroy animals, even venomous ones, because there is a real library of [molecules](#) that are still unknown."

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Citation: Brazil's banana spider aids erectile dysfunction treatment (2023, September 28)
retrieved 9 May 2024 from
<https://medicalxpress.com/news/2023-09-brazil-banana-spider-aids-erectile.html>

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