

Team nails fungal cure

Plant research flowers into treatment

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MELBOURNE researchers in their uni garden lab have uncovered a promising treatment for one of our most irritating ailments.

Runners and surfers, the elderly and diabetics are among millions worldwide affected by stubborn and hard-to-treat onychomycosis — nail fungal infection.

Hexima, a biotechnology company embedded in the La Trobe Institute for Molecular Science, has received promising results following a human trial of its potent plant defensin peptide, HXPI24, developed in its Melbourne lab.

“Around 12 per cent of the global population suffers from fungal nail infections, and unfortunately many of these are not treated because current available drugs work poorly and are expensive,” said Hexima chief Dr Nicole van der Weerden.



Professor Marilyn Anderson and Nicole van der Weerden.

“Left untreated, patients can suffer pain and discomfort and can have difficulty walking.

“We have shown that HXPI24 can substantially reduce the area of infection

and can do so up to four times as fast as other available treatments. Our treatment penetrates the nail and kills the fungus that causes infection.”

The research follows work done by Professor Marilyn Anderson in the late 1990s when she was searching for molecules that protected flowers from fungal disease.

Since then, Prof Anderson, now Hexima's chief science officer, and her team have identified hundreds of plant-derived antifungal molecules able to combat a wide range of fungal diseases, including HXPI24, which is derived from the bitterbush shrub.

“It's personally very rewarding to see our years of research being translated into a potential new treatment for fungal infections in humans,” she said.

The second stage of the trial, involving a larger cohort of patients, is underway.

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