BBC NEWS

HEALTH

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Coral could hold key to sunscreen pill

By Michelle Roberts
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Scientists hope to harness coral's natural defence against the sun's harmful ultraviolet rays to make a sunscreen pill for humans.

The King's College London team visited Australia's Great Barrier Reef to uncover the genetic and biochemical processes behind coral's innate gift.

By studying a few samples of the endangered Acropora coral they believe they can synthetically replicate in the lab the key compounds responsible.

Tests on human skin could begin soon.

Before creating a tablet version, the team, led by Dr Paul Long, plan to test a lotion containing the same compounds as those found in coral.

To do this, they will copy the genetic code the coral uses to make the compounds and put it into bacteria in the lab that can rapidly replicate to produce large quantities of it.

Long said: "We couldn't and wouldn't want to use the coral itself as it is an endangered species."

He said scientists had known for some time that coral and some algae could protect themselves from the harsh UV rays in tropical climates by producing their own sunscreens but, until now, they didn't know how.

"What we have found is that the algae living within the coral makes a compound that we think is transported to the coral, which then modifies it into a sunscreen for the benefit of both the coral and the algae.

"Not only does this protect them both from UV damage, but we have seen that fish that feed on the coral also benefit from this sunscreen protection, so it is clearly passed up the food chain."

This could ultimately mean that people might be able to get inbuilt sun protection for their skin and eyes by taking a tablet containing the compounds. But for now, Dr Long's team are focusing their efforts on a lotion.

"Once we recreate the compounds we can put them into a lotion and test them on skin discarded after cosmetic surgery tummy tucks.

"We will not know how much protection against the sun it might give until we begin testing.

"But there is a need for better sunscreens."

Another long-term goal of the Biotechnology and Biological Sciences Research Council-funded study is to look at whether the processes could also be used for developing sustainable agriculture in the Third World.

The natural sunscreen compounds found in coral could be used to produce UV-tolerant crop plants capable of withstanding harsh tropical UV light.

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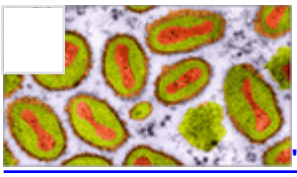

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