

Coral inspires sunscreen breakthrough

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Larissa Bright and Dr Mark York

Australia's national science agency, The Commonwealth Scientific and Industrial Research Organisation (CSIRO) and skin care company Larissa Bright Australia have developed a UVA/UVB sunscreen said to mimic the natural sun protection used by corals on the Great Barrier Reef.

CSIRO scientists spent two years adapting the coral's sunscreen code so that it could safely be used as an ingredient in human sunscreen; the coral's sunscreen was then improved to create a suite of 48 new sunscreen filters. According to the agency, the filters are resistant to both UVA and UVB rays and are clear and colourless.

The research builds on work by scientists at the Australian Institute of Marine Science (AIMS). Larissa Bright Australia, in partnership with AIMS, studied the results of over 20 years of AIMS research into the UV protection mechanisms employed by shallow water corals before approaching CSIRO.

CSIRO Research Scientist Dr Mark York, who led the research project in conjunction with Senior Research Scientist Dr Jack Ryan, said: “The molecular make up of the coral’s natural sunscreen filter was quite complex, but the real challenge was modifying it so that it was resistant to both UVA and UVB radiation in one molecule, which is what makes these filters so unique.”

“We wanted to find a way to convert this natural method of coping with exposure to the intensive UV rays from Queensland’s sunshine into a safe and effective sunscreen for human use,” added Larissa Bright, Company Director of Larissa Bright Australia. “We feel these filters will set a new standard in broad spectrum sunscreen. They mimic the natural sunscreen coral has developed and used over millions of years.”

The broad spectrum coral sunscreen filters are expected to be available in consumer products globally within five years.