Sunscreen mimics sun protection of Great Barrier Reef corals'

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- Australian scientists have developed the world's first UVA/UVB sunscreen which mimics the natural sun protection used by corals on the Great Barrier Reef.

The breakthrough paves the way for a new generation of sunscreens that harness the same protective barriers developed by Australia's Great Barrier Reef corals over millions of years to survive in the harsh Australian sun.

The sunscreen has been developed by Commonwealth Scientific and Industrial Research Organisation (CSIRO) in partnership with skincare company Larissa Bright Australia.

The new UV filters are resistant to both UVA and UVB rays and are clear and colourless which means they can be used in any cream emulsion.

CSIRO scientists have spent the last two years adapting the coral's sunscreen code so that it can be safely used as an ingredient in human sunscreen and was improved to create a suite of 48 new sunscreen filters.

The research builds on work by scientists at the Australian Institute of Marine Science (AIMS) who were the first to discover the natural sun screening ability of coral on the Great Barrier Reef.

Larissa Bright Australia studied the results of over 20 years of AIMS research into how shallow-water corals protect themselves from ultraviolet light.

"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," said Larissa Bright, 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." she added.

CSIRO research scientist Mark York, who led the research project in conjunction with senior research scientist 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".

Meanwhile, AIMS research director Dr Jamie Oliver said, "This is another example of AIMS researchers providing the science to underpin the use of Australia's tropical marine resources in an innovative and beneficial manner."

The broad spectrum coral sunscreen filters are expected to be available to consumers across the globe within five years.