

CMFRI develops seaweed-based nutraceutical to boost post-Covid immunity

India's ICAR-Central Marine Fisheries Research Institute (CMFRI) has come up with a nutraceutical product from select seaweeds to boost the innate immunity related to post-Covid complications.



Named as Cadalmin Immunalgin extract (Cadalmin IMe), CMFRI says that the product also has antiviral properties against the delta variant of SARS CoV-2 virus. “The product is a synergistic combination of seaweed-based nutraceutical product, which is a 100 percent natural blend of highly nutritious bioactive ingredients extracted with eco-friendly green technology,” said Dr Kajal Chakraborty, head of the marine biotechnology, fish nutrition and health division at CMFRI, who led the product research.

This marks the 10th marine product in a series of nutraceuticals developed by the CMFRI. These have targetted a range of lifestyle diseases, such as type-2 diabetes, arthritis, cholesterol, hypertension, hypothyroidism, osteoporosis and fatty liver.

Dr Chakraborty said that bioactive pharmacophore leads from seaweeds were used to develop the nutraceutical product. “A promising reduction of viral infection rate was observed by administering Cadalmin IMe on SARS CoV-2 (delta variant) induced cells. Cadalmin IMe elevates innate immune responses by the regulation of the secretion of pro-inflammatory cytokines and chemokines,” he added.

The Cadalmin IMe interacts with membrane-associated pattern recognition receptors to prevent the virus entry through cellular signalling pathways and also stimulate inflammatory cytokine production. Hence, it will act as a good naturally derived alternative source for health benefits against

inflammation and autoimmune disorders, he said.

The nutraceutical does not have any side-effects, as established by detailed preclinical trials. “It does not have toxicity concerning clinical and behavioural symptoms. The active ingredients in the product would be packed in plant-based capsules. Large-scale extraction of the active principles from the raw material was optimised in a factory unit, which demonstrated the commercial feasibility of the nutraceutical product”, Dr Chakraborty said, adding that the process for commercialisation of the product is in progress.