

## CMFRI Develops Nutraceutical to Boost Immunity Related to Post-Covid Complications



Kochi: In continuation of its major research works on developing natural remedies from marine organisms against various lifestyle diseases, the Central Marine Fisheries Research Institute (ICAR-CMFRI) has come up with a nutraceutical product from select seaweeds to boost the innate immunity related to post-Covid complications. Named as 'Cadalmi<sup>TM</sup> Immunalgin' extract (Cadalmi<sup>TM</sup> IME), the product also has antiviral properties against the delta variant of SARS CoV-2 virus, the CMFRI said in a statement here on Monday.

"The product is a synergistic combination of seaweed-based nutraceutical product, which is a 100 per cent natural blend of highly nutritious bioactive ingredients extracted with eco-friendly 'green' technology," Dr Kajal Chakraborty, Head of the Marine Biotechnology, Fish Nutrition, and Health Division of CMFRI, who led the research to develop the product, is quoted as saying in the statement.

This marks the 10th product in a series of nutraceuticals developed by the CMFRI from marine organisms. In the past, the institute has successfully brought out nutraceuticals targeting a range of lifestyle diseases, such as Type-2 diabetes, arthritis, cholesterol, hypertension, hypothyroidism, osteoporosis, and fatty liver. "A promising reduction of viral infection rate was observed by administering Cadalmi<sup>TM</sup> IME on SARS CoV-2 (delta variant) induced cells. Cadalmi<sup>TM</sup> IME elevates innate immune responses by the regulation of the secretion of pro-inflammatory cytokines and chemokines," Dr Chakraborty said.

Cadalmi<sup>TM</sup> IME interacts with membrane-associated pattern recognition receptors to prevent 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 pre-clinical trials. "It does not have toxicity. 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.