

# CMFRI's Natural remedy for fatty liver disease from seaweeds

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The Central Marine Fisheries Research Institute (CMFRI), Kochi has come up with a nutraceutical product from select seaweeds to treat non-alcoholic fatty liver disease (NAFLD). Named as Cadalmin™ LivCure extract, the product is a unique blend of 100 per cent natural bioactive ingredients extracted from seaweeds with an eco-friendly green technology to improve liver health.

This is the ninth such product from marine organisms being developed by the CMFRI which already has brought out nutraceuticals to combat a series of lifestyle diseases, such as type-2 diabetes, arthritis, cholesterol, hypertension, hypothyroidism and osteoporosis, and to improve immunity. Out of these nutraceuticals, eight products are from seaweeds and one from green mussel.

Kajal Chakraborty, Principal Scientist at the Marine Biotechnology, Fish Nutrition and Health Division of the CMFRI led the research works to develop the product. Chakraborty said that the bioactive pharmacophore leads from seaweeds were used to develop the nutraceutical product. "Pre-clinical trials showed that LivCure extract proved to have the potential to inhibit different enzymes and various target receptors associated with dyslipidemia and pathophysiology leading to NAFLD. This helps improve liver health, reduce the disposition of fatty substances, and maintain other liver/lipid parameters within the clinically acceptable limits", said Chakraborty.

He points out that the nutraceutical does not have any side effects as established by detailed preclinical trials. "It has proved that long-term oral administration of this product will not lead to general organ or systemic toxicity. The technology will be out-licensed soon to those in the pharmaceutical industry for commercial production of the nutraceutical," added Chakraborty.

A.A Gopalakrishnan, director of CMFRI said for the last few years, the CMFRI has been intensively focusing on research on seaweeds mainly for developing natural products beneficial to improving human health. "Seaweeds are often termed as the wonder herbs of the ocean due to their potential pharmaceutical properties. Recently, this marine macro flora is gaining immense attention in nutraceutical industries due to its protective function against various chronic diseases", said Gopalakrishnan and added that intensive and continuous research on extracting bioactive compounds from the seaweeds has helped CMFRI win much national recognition.