



Seaweed compounds form natural remedy for fatty liver disease in humans

Researchers from India's CMFRI are developing natural products from seaweed species and other marine organisms that could benefit human health.



As ICAR-CMFRI continues its major research projects focusing on natural health remedies for lifestyle diseases derived from marine life, the institute has developed a nutraceutical product from different seaweed species. According to a news release from CMFRI, the seaweed-derived product can treat non-alcoholic fatty liver disease (NAFLD). Named as Cadalmin LivCure extract, the product is a unique blend of 100 percent 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 had 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.

Dr Kajal Chakraborty, principal scientist at the marine biotechnology, fish nutrition and health division of the CMFRI led the research to develop the product. He said that 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 and lipid parameters within the clinically acceptable limits,” he added.



Tropical seaweeds for the last few years, the CMFRI has focused its research efforts on seaweeds and seaweed-derived nutraceuticals. 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,” Dr Chakraborty added. The technology will be out-licensed soon to those in the pharmaceutical industry for commercial production of the nutraceutical. For the last few years, the CMFRI intensively focuses on research on seaweeds mainly for developing natural products beneficial to improving human health, said Dr A Gopalakrishnan, Director of CMFRI. “Seaweeds are often termed as the wonder herbs of the ocean due to their potential pharmaceutical properties. Recently, this marine macroflora is gaining immense attention in nutraceutical industries due to its protective function against various chronic diseases,” he said, adding that intensive and continuous research on extracting bioactive

compounds from the seaweeds has helped CMFRI win much national recognition.