



RIMFROST

## PRESS RELEASE

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### **New study from Rimfrost shows that krill derived ingredients may be health beneficial as it reduces atherosclerosis in mice.**

Rimfrost is a Norwegian biotechnology company and a world leading supplier of ingredients derived from Antarctic krill. To increase knowledge about the biological effects and mechanism of actions of proteins and lipids derived from krill, the company has established a long-term collaboration with the University of Bergen in Norway. The most recent outcome of this is the acceptance of a scientific publication in the *Journal of Molecular Nutrition and Food Research*.

The manuscript entitled "Effect of Dietary Components from Antarctic Krill on Atherosclerosis in apoE-Deficient Mice" has been published on-line on the 15<sup>th</sup> of August in the *Journal of Molecular Nutrition and Food Research*\*. Apo(e) knock-out mice, a model of dyslipidemia and atherosclerosis, were provided either a control diet or diets enriched with krill oil, krill protein or krill protein and krill oil in combination. The diets that contained krill oil reduced cholesterol levels, inhibited plaque development and prevented liver damage. Krill protein also reduced atherosclerosis, however, through a mechanism not involving cholesterol reduction.

"It was interesting to find that krill protein reduced atherosclerosis by a different mechanism than krill oil. This could be due to the high level of arginine contained naturally in the krill proteins. Arginine is a precursor for nitric oxide (NO) synthesis and known to improve vascular function in humans" says Professor Rolf Kristian Berge at the University of Bergen, Norway.

"Another explanation could be that proteins which undergoes gastrointestinal digestion have released bioactive peptides. Peptides are also known from the literature to have cardiovascular protective effects." says Professor Rolf Kristian Berge.

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\* <http://onlinelibrary.wiley.com/doi/10.1002/mnfr.201700098/full>