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Abstract

"Natural products", "clean labelling", "organic" – the cosmetic industry meets high demands from consumers and the trend is clear. Therefore, there is an interest in exploring the potential for developing new natural ingredients that works.

The utilization potential of Nordic *Saccharina latissima* is enormous. Brown alga contains a wide range of compounds with multi-functional properties, which the cosmetic industry can benefit from.

Antioxidant compounds, such as polyphenolics, can provide the skin care product with antioxidants to reduce oxidative stress and ageing of the skin. Furthermore, antioxidants can increase the oxidative stability of the skin care product, and thereby, protect lipids from oxidizing and losing their functionality. Other antioxidant compounds, polysaccharides, like laminarin, alginate and fucoidans, can also work as stabilizers in skin care formulations. Hence, there is huge potential in extracting these different compounds and apply them in skin care products.

In an ongoing project, MAB4, the overall aim is to establish a sustainable production of ingredients derived from the brown alga *Saccharina latissima*. One task is to evaluate these ingredients in skin care emulsions as antioxidants and/or as stabilizing agents.

The outcome of this project will be well-documented effect of these ingredients. Next will be the work on how to get these approved as ingredients for cosmetic application. This will be discussed together with results from the on-going work.

Biographies

PhD **Ditte B. Hermund** is a food scientist and employed in a postdoc postion at the National Food Institute in Copenhagen, Denmark. She did her PhD on extraction and characterization of antioxidant

substances from *Fucus vesiculosus*. She also studied the potential of natural algae based antioxidants for hindering quality deterioation in omega-3 enriched food products.

Her current research focusses on extracting bioactive compounds from *Saccharina latissima* and determening their chemical composition and functional propreties. Moreover, she studies how algae based ingredients can be used in food and cosmetic applications.

CEO **Louise Mellisa Klinder** took over the family company, Mellisa Asp., together with her brother Rasmus in 2011. Mellisa Organic Skin Care is now a well-established medium sized company. The company aims at producing high quality luxury skin care products with natural and organic ingredients. Louise has a huge interest in seaweed as a natural ingredient for skin care, which is why she's involved in the MAB4 project where one of the tasks is to develop high value ingredients for cosmetic applications.