

BlueCC

Commercial exploitation of marine collagen and chitin from marine sources

About the project

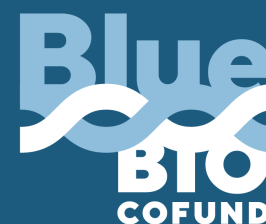
Over the coming decades, the world will witness increased competition for limited and finite natural resources, e.g. to feed the 9 billion global population by 2050 and to handle changed demographics. An aging population requires new solutions to add life quality to those extra years, in fighting aging diseases and related processes. Bio-waste is estimated at up to 138 million tons per year in the EU.

Additionally, there are large amounts of underutilised animal species, such as invasive marine species causing devastation to local ecosystems. These two issues represent not only problems, but also opportunities for innovative actions in the EU to better develop what is currently wasted or underutilised.

The BlueCC project aim to take underutilised species such as invasive marine species, by-catch and cleaner fish from the aquaculture industry, to develop new marine ingredients and products, with significantly reduced impact on the environment. The specific focus will be on sustainable exploitation of collagen and chitin resources produced by jellyfish, starfish and cleaner fish, and invasive crabs respectively.

To succeed with product development of research-intensive products such as chitin and collagen, we will apply a strong emphasis on market needs and insights throughout the project. BlueCC will be carried out by an interdisciplinary team and is divided into six main work packages addressing market driven concept development, sustainable chitin, chitosan and collagen demonstrators, health effects as well as characterization of novel marine ingredients and finally, commercialisation feasibility in an RRI framework.

Altogether, BlueCC will in a sustainable and efficient manner exploit underutilized marine raw materials, from laboratory to prototype demonstration, to reach collagen and chitin-based bioactive demonstrators with potential commercial uses reaching the Technology Readiness Level 7.



Project Overview

CALL 1 | 2019

Project Coordinator:

Runar Gjerp, Solstad Nofima Marine biotechnology, Tromsø, Norway

Project Partners:

- Dr. Johan Robbens, Flemish Research Institute for Agriculture, Fisheries and Food, Merelbeke, Belgium
- Dr. Donatella de Pascale, National Research Council, Institute of Biochemistry and Cellular Biology, Naples, Italy
- Prof. Katleen Raes, Ghent University, Department of Food Technology, Safety and Health Kortrijk, Belgium
- Dr. Stefan Rasche Fraunhofer, Institute for Molecular Biology and Applied Ecology IME Plant Biotechnology, Aachen, Germany

Keywords:

Valorisation, Functional food, invasive species, by-catch

Priority Area:

Exploring new bioresources

Funding granted:

1.940.882 euros *



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement no. 817992.

* The exact amount of granted funds may change after completion of national contracts.