

## Using fucoidans from algae for medical and cosmetic products

Brown algae from the Baltic Sea contain a multitude of bioactive ingredients, e.g. Fucoidane. How can these Fucoidans be used for medical and cosmetic products? This question is the issue being addressed by the partners in the German-Danish FucoSan project. Over the next three years, Fucoidans will be standardised, extracted from brown algae, chemically characterised and tested for bioactivity. The test results are documented in a cross-border knowledge database. The database identifies the Fucoidans that are best suited for the development of medical devices for age-related macular degeneration (AMD), tissue engineering and cosmetics. To ensure the sustainability of the project results, FucoSan develops several business models. Visit the FucoSan website:

[www.fucosan.eu](http://www.fucosan.eu)

### Potentials

- Marine biotechnology is a future technology for many fields of application.
- Algae from the North Sea and the Baltic Sea are available as an under-utilised bio resource.
- Commercial use in the areas of health and wellness is possible.
- Various modes of action (including antioxidant effects) await research.

### Project goals

- We develop economic and ecologic sustainable procurement processes for brown algae in the Baltic Sea.
- We are building a database to make the results available for everyone.
- We test products in ophthalmology, regenerative medicine and cosmetics.
- We generate a German-Danish value chain.

### Project partners

- University Medical Centre Schleswig-Holstein, Campus Kiel (lead partner)
  - Department of Ophthalmology (project coordination)
  - Department of Orthopaedics and Trauma Surgery
- Kiel University
  - Pharmaceutical Biology
  - Technology Management
- CRM - Coastal Research & Management GbR, Kiel
- GEOMAR, Research Unit Marine Natural Products Chemistry, Kiel
- OceanBASIS GmbH, Kiel
- University of Southern Denmark
  - Department of Chemical Engineering, Biotechnology and Environmental Technology, Odense
  - Mads Clausen Institute, Sonderborg
- Department of Chemical and Biochemical Engineering, Lyngby
- Odense University Hospital, Orthopaedic Research Unit, Odense

### Project data

- Project duration: March 2017 to February 2020
- The total budget amounts to EUR 3.8 million, thereof EUR 2.2 million are fundings.
- FucoSan is supported by Interreg Deutschland-Danmark by the financial resources of the European Regional Development Fund.

More about Interreg Deutschland-Danmark at [www.interreg5a.eu](http://www.interreg5a.eu)