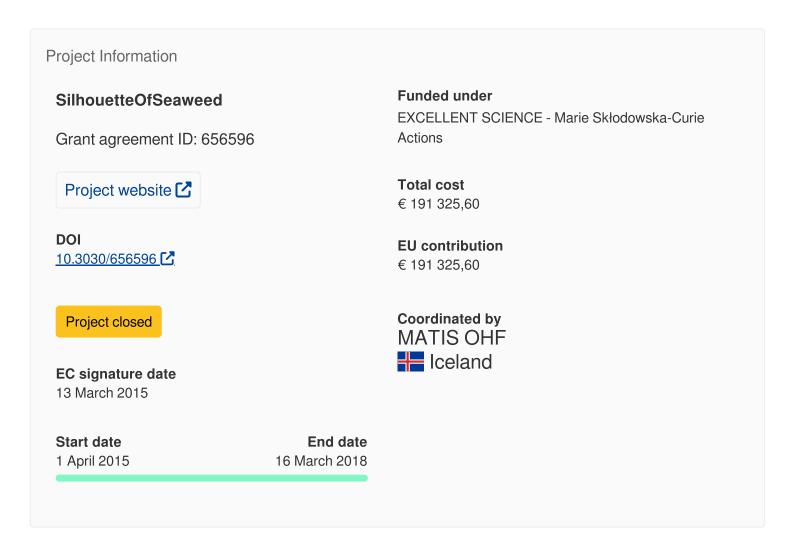
Overcoming barriers in estimating toxicity of arsenic species in seaweed

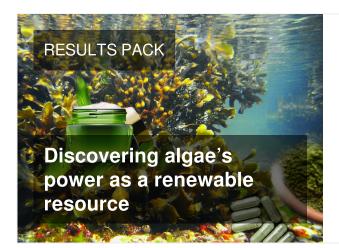


# Overcoming barriers in estimating toxicity of arsenic species in seaweed

#### **Fact Sheet**



# This project is featured in...









# **Objective**

SilhouetteOfSeaweed will contribute to consumer's safety by overcoming barriers in estimating toxicity of arsenic species in seaweed. The ocean covers 71% of the planet and for future sustainability the need for looking at using the ocean for food, e.g. seaweed, is increasing. Seaweed contains high amounts of arsenic, including arsenolipids (AsLp). Recently the first data on AsLp toxicity have elucidated that they are as toxic as the most toxic arsenic, the inorganic arsenic (iAs). There is a lack of data on AsLps in seaweed products for human consumption. Safety of seaweed must be addressed and more studies and information on AsLps are urgently needed. Currently, only few research groups worldwide work on AsLps, partly due to difficulties associated with the measurements of these compounds. SilhouetteOfSeaweed will expand this expertise in Europe by establishing necessary facilities at the host Matís to accommodate AsLp measurements. Matís has the capacity to reach this goal together with the experienced researcher and in cooperation with a European partner organisation with expertise in AsLp measurements. SilhouetteOfSeaweed will have two main scientific impacts. Firstly, it will produce AsLp seaweed profiles in 4 different species of brown algae in 3 locations during 3 seasons in Iceland. This information will contribute to the necessary risk assessment needed for algae used for human consumption. Secondly, statistical evaluation and comparison of environmental conditions will make it possible to identify whether the seaweed could be harvested at specific conditions where the amount of toxic arsenic is at its lowest. These data are essential for SMEs entering the European market with their seaweed products. Moreover the project will impact the career development of the experienced researcher who will gain a wide range of scientific and transferable skills that are relevant to establish a long-term independent leading career in the field of science.

#### 

natural sciences > biological sciences > microbiology > phycology

natural sciences > earth and related environmental sciences > physical geography > coastal geography

<u>natural sciences</u> > <u>physical sciences</u> > <u>astronomy</u> > <u>planetary sciences</u> > <u>planets</u>

natural sciences > biological sciences > biochemistry > biomolecules > lipids

natural sciences > chemical sciences > inorganic chemistry > metalloids



#### Programme(s)

H2020-EU.1.3. - EXCELLENT SCIENCE - Marie Skłodowska-Curie Actions (MAIN PROGRAMME

H2020-EU.1.3.2. - Nurturing excellence by means of cross-border and cross-sector mobility

#### Topic(s)

MSCA-IF-2014-EF - Marie Skłodowska-Curie Individual Fellowships (IF-EF)

#### Call for proposal

H2020-MSCA-IF-2014

See other projects for this call

### **Funding Scheme**

MSCA-IF-EF-ST - Standard EF

#### Coordinator



#### **MATIS OHF**

Net EU contribution

€ 191 325,60

Total cost

€ 191 325,60

Address

**VINLANDSLEID 12** 

113 Reykjavik





Activity type

**Research Organisations** 

Links

Contact the organisation Website Website Participation in EU R&I programmes [2] HORIZON collaboration network

Last update: 8 August 2022

Permalink: https://cordis.europa.eu/project/id/656596

European Union, 2025