IDEA Spark Cantabria 2019

Reference #	12949013
Status	Complete
Login Username	nlarroyo
Login Email	nlarroyo@investalga.com
Project Title	Seaweed (Ulva sp.) as a potential source of extracts with biomedical applications.
Short project title (max 20 alpha-numeric characters)	BiomedicULVA
How long have you (or your team) been working on this project?	2 years
How many people are on your project team? (Count only those who will be involved in doing the work of the program and/or those you would like included on any email communications from the program. Note that each person will need to submit a registration form; instructions will be provided after this application is submitted.)	2
Applicant name:	Lara Arroyo Hailuoto
Applicant E-mail address (when you submit, a copy of your entry will be sent to this email)	nlarroyo@investalga.com

Project Description:
Provide a brief overview of your project. Please comment on the problem you propose to solve and the potential societal impact of solving it. This should be understandable and compelling to someone not skilled in the art.

Demand for natural products is increasing globally and macroalgae provide an immense variety of possible uses. Macroalgae are already used in the food sector (both animal and human nutrition and in the phycocolloid industry), in plant-protection and fertilizing products, in cosmetics and in the pharmaceutical industry. They are also beginning to be postulated as a sustainable source of biomaterials, both as plastic substitutes and in the production of wound dressings, tissue regeneration, etc.

At Investalga Ahti, we want to be the Spanish biotech of reference when it comes to the sustainable exploitation of marine macroalgae's unique palette of bioactives. We specialize in Ulva species due to their rapid growth, cosmopolitanism, high nutrient absorption rates and richness in nutritional composition and bio-active compounds.

One of the main uses to which we intend to apply this biomass in is the obtention of sulphated polysaccharides. These compounds have numerous properties both at cosmetic and therapeutic level, and specifically, those found in Ulva species (ulvans) have been found to have anti-tumoral, immunomodulatory, emollient, healing, anticlotting, antioxidant and uninflammatory potential.

Have there been any previous approaches to solving this problem (or answering the question)?
Please describe how your idea is original.

Except for a few species for which cultivation and growth cycles are now fully established, sources for macroalgal biomass have mostly been based in collection or harvesting from wild populations or cast material washed on the shores. The obtained biomass often doesn´t comply with security and quality requisites demanded by the various target markets. Moreover, overexploitation of wild populations may pose threats to coastal ecosystems.

Our competitive advantage is the absolute control of feedstock (the macroalgal biomass) during all its cultivation and processing phases, in such a way that its security, quality, homogeneity and sustainability can be guaranteed and used in high value-added applications.

To this end, we cultivate our seaweed in controlled environments under optimal growth and quality conditions, and develop clean and sustainable processing, extraction and purification methods for the obtention of bio-active compounds. In this way we can offer high quality and security products to the various target markets year-round, avoiding seasonality and traceability problems which are often found in seaweed natural extracts, while we minimize pressure on marine resources and ecosystems.

Tell us something interesting about yourself (and your team)

Our team is currently composed of Lara Arroyo Hailuoto and Juan Robles Chomon, as well as research staff which is hired on a project-needs basis.

Lara is CEO of Investalga and holds a PhD in Biology, specialized in marine ecology. She has participated in numerous projects related with marine macroalgae at national and international level, and previously funded the consultancy company Menntun Scientific Consultancy, devoted to environmentally related consultancy and scientific activities.

Her research areas have always been related with macrophytic systems, where she has analysed structural, functional and anthropogenic impact effetcs on and of the macroaphytic species and their associated fauna. Lara also has experience in international cooperation for development initiatives, where she also led projects using seaweed cultivation as a potential tool for development in coastal areas of Senegal.

Juan is COO of Investalga, and an Industrial Engineer with an MBA. He has worked in several international engineering and consultancy companies related with the water cycle, as well as in R&D and Innovation consultancy projects.

Juan has experience in design of water desalination plants and drinking water treatment plants (DWTP), which has helped Investalga when establishing water quality control systems. Juan has also worked as a consultant for technological centres and biotech companies in conceiving and developing R&D projects, so his experience is key to identify ideal technological partners for Investalga and define the collaboration agreements necessary to advance in the various scientific and technological developments carried out by our company.

Why do you want to participate in the program and what do you hope to gain from the program?	We are willing to participate because we feel it will widen our project's scope immensely, not only as regards the commercial and market driven sides of its potentiality but also focusing on the most innovative and revolutionary aspects of our product. We feel MIT's long trajectory and experience in guiding Research based Start-up bussiness models towards successful market debuts, will surely give us worthy ideas to boost our project's development and set the guidelines for a more cost-effective and optimized transition to the market. We also hope to broaden our vision and possibilities regarding the biotechnological possibilities associated with the kind of feedstock we are working with, as well as in relation to the biomedical applications it can be dedicated to. Finally, we hope to build a solid network of new contacts and acquaintances with similar interests as ours with whom we can maybe collaborate or exchange knowledge and/or experiences.
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OS	Windows
Referrer	https://fs24.formsite.com/res/formLoginReturn

Registration for IDEA Spark

Reference #	12949565
Status	Complete
Short Project Title (use title from IDEA Spark Application)	BiomedicULVA
First Name	Lara
Last Name	Arroyo Hailuoto
Preferred name (for name tags)	Lara
Institution or organizational affiliation	Investalga Ahti S.L.
Degree	PhD
Role in Institution	Entrepreneur
City	Santander
Country (if US, enter State)	Spain
Phone Number	+ 34 942 130926
Email Address	nlarroyo@investalga.com
In what way will you be participating in IDEA Spark?	In person
Last Update	2019-04-09 11:32:31
Start Time	2019-04-09 11:28:14
Finish Time	2019-04-09 11:32:31
IP	2.154.83.180
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OS	Windows
Referrer	https://fs24.formsite.com/MITLinQ/idea_spark_registration/index.html