Partner search

Date (Dec. 2017)

- **(*) Relevant topic in work programme**

1/ Microalgae biotechnology: The GEPEA laboratory is involved on the study of processes adapted to the specificities of microalgal biomass and work within an integrated approach, combining strain selection/optimization, process development and unit operation integration.
2/ Process development in microalgal culture and refining: The GEPEA laboratory conducts research on photobioreactor engineering, metabolic orientated cultures, microalgal wet-biomass biorefining for by-products valorization, procedures for culture media recycling and microalgae culture on industrial effluent (urban wastewater, fisheries effluents, industrial CO2, fatal heat…)
3/ Interdisciplinary training activities : The GEPEA with the Nantes University propose training activities for professionals (microalgae culture – downstream processes – analytical methods).

- **Quick description of the project**

(describe the objectives, activities, partners requested and their skills)

The GEPEA laboratory (Chemical Engineering for Environment-Food, UMR GEPEA 6144-Université de Nantes) and his team Bioprocess Microalgae Bioprocess Engineering (Bioprocesses and separation within a marine environment) which is involved on the study of processes adapted to the specificities of microalgal biomass are interested in developing processes directly drive by today's aquaculture issues. The current activities on photobioreactors engineering, microalgal biomass harvesting can be directly transposed for microalgae production for aquaculture needs. The GEPEA has also a strong experience in wastewater treatment and microalgae harvesting that can contribute to solve sustainable aquaculture issues related to water pollution and re-use. The laboratory has also deeply studied wet microalgae biorefinery and lipids and proteins recovery and is interested in studying the extraction of ingredients for feed nutrition.

- **(*) Description of the expertise requested (up to 1000 characters)**

We are interested in joining a project related to microalgae production for aquaculture applications. We are especially looking partners involved in microalgal species selection, biological optimization, and animal feed nutrition (biological activities assessment, animal feed testing…).

- **Keywords describing the expertise requested (up to 10 words)**

- Aquaculture
- Microalgae biomass
- Animal feed nutrition
- Biological activities assessment

Organisation information

Organisation and country: Laboratory GEPEA UMR GEPEA 6144-Université de Nantes - FRANCE
Type of organisation: **☐ Enterprise ☐ SME X Academic ☐Research institute ☐ Public Body ☐ Other: Association**
Former participation in FP European projects? **☐ Yes ☐ No**
Web address: https://www.gepea.fr/
Description of the organisation: The GEPEA laboratory (laboratory (Chemical Engineering for Environment-Food, UMR GEPEA 6144-Université de Nantes) is a large (200 people) joined research unit with the CNRS bringing together teams from the Université de Nantes, Ecole des Mines and ONIRIS. It has received an A+ rating by the national evaluation committee (AERES), which is the highest rate delivered only for French top-level laboratories. The research activities are organized in four research axes: (i) Bioprocess and Separation within a Marine Environment, (ii) Energy Engineering, (iii) Environment Engineering, (iv) Matrices & Food: Process – Properties – Structure – Sensorial. The team Bioprocess Microalgae Bioprocess Engineering (Bioprocesses and separation within a marine environment) which gathers forty people located primarily on the site of Saint-Nazaire is involved on the study of processes adapted to the specificities of microalgal biomass. Activities on microalgae are mainly focused on photobioreactors engineering, microalgal biomass harvesting, extraction and purification of metabolites of interest, treatment and recycling of water and culture medium containing microalgae. GEPEA has a long-term expertise in bioprocess engineering applied to microalgae with around 150 publications in peer-reviewed journals on the 2010-2015 period. The group of 24 researchers involved in this topic allows GEPEA working on all topics related to microalgal biomass valorization, from microbiology, to final products extraction. The R&D facility AlgoSolis complements the facilities already available in the GEPEA laboratory allowing the scaling-up to TRL 4-7 of all the investigate processes from culture to extracts production.

(*) Contact details

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